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ABSTRACT

Findings of a study that examined the perceived effects of school-based decision making (SBDM) on school curriculum, particularly vocational education, and decision-making processes are presented in this document. Sixty-nine secondary schools in Kentucky participated in SBDM during the 1991-92 school year. Data were obtained from a survey mailed to a total of 558 school personnel--principals, counselors, English teachers, mathematics teachers, science teachers, and vocational teachers from the 69 schools. Findings indicate that 67 percent of school personnel believed that SBDM improved the quality of decision making during the initial year of operation. The highest percentage of positive responses came from principals. No major shifts in vocational education programming occurred. Forty-two percent of the returned surveys reported increased interaction of vocational and academic teachers, with a low to moderate increase in the degree of integration between vocational and academic programs. Five tables and three figures are included, as well as an executive summary. Appendices contain correspondence, questionnaires, and statistical data. (LMI)

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School-Based Decision Making

First-Year Perceptions of Kentucky Teachers, Principals, and Counselors

by Joyce Polley Logan, Ed.D.

Department of Vocational Education

College of Education

University of Kentucky

Lexington, KY 40506-0017

August 1992

Funding for this research came from a College of Education Development Mini-Grant Award. Opinions expressed in this paper are those of the author and do not necessarily represent positions of the College of Education nor of the Kentucky Department of Education.

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Executive Summary

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Abstract

School-based decision making (SBDM) was implemented in at least one school in each school district during the 1991-92 school year. Sixty-nine of these schools were secondary and were on an implementation list prepared by the Kentucky Department of Education in July 1991. This study examined the perceived effects of SBDM on the school curriculum and on school decision making. Opinions about the process and about changes in vocational education, as well as other curricular changes, were gathered from 324 principals, counselors, English teachers, mathematics teachers, science teachers, and vocational teachers from these 69 schools. Survey instruments were mailed to 558 faculty, administrators, and counselors in these schools. Assessment of SBDM's effect on curriculum and on vocational education programs can help vocational educators plan for the future, and school personnel's perceptions of operational strengths and weaknesses of the SBDM process have implications for implementers of future SBDM sites.

Conclusions

Does SBDM affect the quality of decision making?

1. About two-thirds of all survey respondents said that SBDM did improve the quality of decision making this year, and 82 percent expected the SBDM process to improve the quality of future school decisions.

2. Principals and academic teachers viewed SBDM's impact on decision making this year significantly higher than did vocational teachers and counselors; however, 80 percent of vocational teachers expected future improvement on decision making while only 68 percent of the counselors held this expectation for improvement.

3. As reported on survey responses, principals' perceptions of SBDM's effect on improving the quality of decision making was significantly higher than all others surveyed (81% positive for this year and 97% positive for the future). These percentages should not be expected to apply to future sites since this year's schools volunteered to participate and 36 percent of the principals in this year's SBDM secondary schools were in their first year of principalship at the school.

4. Most of the positive comments about SBDM related to increased input from parents and teachers. Other comments noted that reasons are given for decisions and that more information is available to everyone. Others said the council was just getting organized and would bring improvement next year.

5. Negative comments mentioned the slowness of the process, lack of cooperation from the central office or within the council, lack of direction and vision, control of the council by administrators, jealousy between teachers and administrators, lack of information, and not enough training. According to about a half dozen respondents, politics remains a big part of the process, having just moved to the school level.

Table 1. Positive Effect of SBDM on Quality Decisions
Frequencies and Percentages of Response

		QUESTION 1				QUESTION 2			
		THIS YEAR (p = 0.039)				NEXT YEAR (p = 0.007)			
		YES		NO		YES		NO	
JOB TITLE	n*	f	%	f	%	f	%	f	%
Principal	43	34	81	8	19	38	97	1	3
Counselor	42	25	59	17	41	28	68	13	32
Acad Tchr	122	84	71	34	29	97	84	19	16
Voc Tchr	117	70	60	47	40	91	80	23	20
TOTALS	324	213	67	106	33	254	82	56	18

*This column represents the total survey forms returned. Frequency totals for each question may differ because of no response to the particular question. Percentages are calculated on total responses to the question.

Have changes in curriculum, classes, programs, or vocational enrollments taken place during the first year of SBDM implementation?

1. In the SBDM secondary schools, more vocational programs or classes have been added than have been deleted (32% additions to 17% deletions). Tech Prep and changes in technology education accounted for part of this gain. Middle school business, pre-school, parenting, JTPA career education, and two interdisciplinary courses--agri-biology and nutritional chemistry--were part of the additions listed.

2. More changes were listed for business than other areas--with more additions than other areas and also more closures--resulting in a slight net loss of classes.

3. Forty-two percent of the responses listed other curricular changes in the SBDM schools: addition of classes in study skills, career awareness, humanities, foreign language, applied social studies, leadership, senior seminar, and

leadership; changes in mathematics program and graduation requirements; Tech Prep diploma; monthly performance events; early morning classes; 7-period day; and replacement of homeroom with PAL (Pupil-Assisted Learning).

4. About one-fourth of respondents reported significant change in vocational program enrollments but slightly more than half (56%) indicated increases rather than decreases. Business education experienced the greatest enrollment gain in spite of a net reduction in the number of classes--possibly because some schools added keyboarding as a requirement and expanded the number of computer classes. These class sizes are generally larger than Typewriting II and shorthand which were some of the classes listed as closed.

5. Reasons given for vocational enrollment increases were change to 7-period day, addition of Tech Prep or other new programs, more use of computers, keyboarding as a graduation requirement, active recruitment by vocational teachers, and change to modular technology education.

6. Vocational enrollment decreases were attributed to an increased emphasis on academic classes and the pre-college curriculum and a shortage of funds for vocational programs.

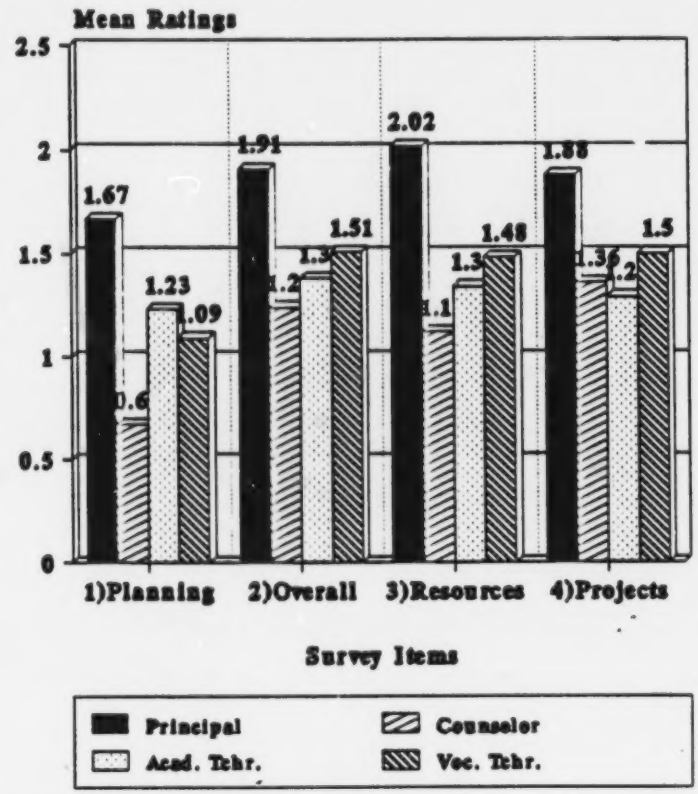
Has SBDM resulted in more interaction of academic and vocational teachers or more integration of vocational and academic content?

1. Forty-two percent of respondents said there was more interaction of vocational and academic teachers. Fifty-one percent of the principals noted more interaction. Nineteen persons who did not think interaction had changed said that working relationships had always been good in their schools.

2. About one-fourth of principals and 15 percent of counselors reported more articulation with the vocational school.

3. In a rating of the degree of influence SBDM had on integration of vocational and academic education, the highest rated items related to mutual understanding of each others programs. Ratings for other items are shown in Figure 1 including (1) Joint Planning, (2) Overall integration, (3) Shared resources, and (4) Joint projects. The rating scale ranged from 0 to 4: 0 No effect, 1 Limited effect, 2 Moderate effect, 3 Significant effect, and 4 Great effect.

Figure 1. DEGREE OF SBDM INFLUENCE
Integration Ratings by Job Title



Rating Scale 0 to 4, n= 324, p<.05

Have changes taken place in the allocation of time and resources for programs?

1. Forty percent of respondents said that changes have taken place in allocation of funds for vocational programs. Of those reporting change, decreased funding was checked twice as many times as increased funding. Only about one fourth of these changes pertained to allocations of funds within the school or school district, with most of the decreases due to reduced funding from the state and/or federal levels.

2. Changes in allocations of time for classes or joint planning of vocational and academic teachers included the 7-period day, early morning classes, and alternate-day scheduling.

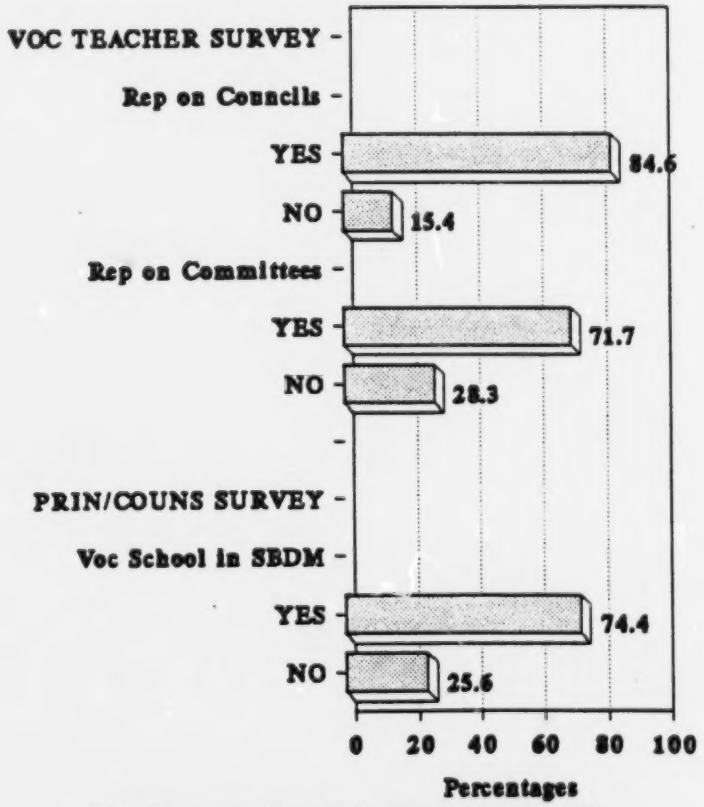
3. Counselors believed that SBDM had a moderate influence on increasing career planning and course selection activities.

Did school councils and schoolwide committees include vocational representation?

1. Vocational teachers and principals differed in the percentages of school councils with vocational teacher membership. Vocational teacher responses represented more schools and reported 85 percent representation while only 53.5 percent of principals reported vocational teachers as council members. Considering the numbers of schools represented by each group and a slight difference in the question for principals and vocational teachers, the percentage on councils was probably in the range of 60 to 70 percent.

2. Principals and counselors reported that vocational school personnel were represented in the work of school councils in 74 percent of the schools. Figure 2 shows the results of this survey and the high school vocational teacher responses about their representation on school councils and committees.

Figure 2. SBDM VOCATIONAL REPRESENTATION



Tchr Survey n=217; Prin/Coun Survey n=82

RECOMMENDATIONS

- New SBDM sites need more information and training available for school council members and administrators in facilitating behaviors and participative management.

- SBDM can contribute to increased interaction of vocational and academic teachers and collaborative efforts which support the integration of knowledge. As KERA places more application activities in academic classes and federal legislation promotes more academic content in vocational classes, sharing of information and joint planning must take place to avoid excessive duplicative overlap and instructional inconsistencies.

- There is some evidence in this study that SBDM, in a limited way, increased vocational and academic interaction. Schools that brought these teachers together to work on Tech Prep planning, schoolwide issues, and KERA activities such as writing portfolios gave the most evidence of improving integration. Mutual understanding and respect are key factors, and there was movement toward this understanding in SBDM schools.

- Vocational funding continues to be somewhat divisive, although for different reasons than in the past. Previously, state and federal funding supported the extra costs for equipment and materials for vocational classes. These funds have shrunk and more control has been shifted to the local level. Vocational education at the local level will bear a greater responsibility for gaining program support. With more performance activities added in academic classes, additional materials and funding will be needed. Competition for fewer available dollars can be counterproductive to teamwork, and every effort should be made in allocation of funds to avoid pitting academic programs against vocational programs in funding decisions.

- Educational reform weakens the bureaucratic support for vocational programs and places responsibility on local administrators and teachers to ensure that quality vocational and academic opportunities are provided for all secondary students. Vocational and academic programs have mutually supportive roles to play in accomplishing all 75 valued outcomes set by KERA. Some of these outcomes can best be taught explicitly by academic teachers and reinforced implicitly by vocational teachers while others should be taught by vocational teachers with reinforcement in academic classes.

- Representation of vocational programs in school council curriculum deliberations will be critical to inclusion rather

than exclusion as schools work to improve student achievement of basic core competencies. A good beginning has been made in vocational representation and involvement; however, vocational teachers should assume greater responsibility than ever before for disseminating information about vocational education's contributions to the total school curriculum. On the other hand, vocational teachers must approach change with an open mind and be part of local change efforts which promise student achievement gains.

- Principals in this study responded more positively than other school personnel about the potential of SBDM and gave higher ratings for its influence on curriculum integration. SBDM directly affects the role of principal. If these school administrators "buy into" the process, SBDM is more likely to be successful. Principals will need more skill, not less, to work collaboratively with councils; and if they feel more empowerment by bringing additional decisions to the school level, they may be more willing to share this power with others.

- Continued study over a longer period of time with both qualitative and quantitative research will be essential to identify benefits, barriers, and successful practices related to school-based decision making. Curriculum-related issues and how schools deal with these issues are critical to the school improvement effort. Further research is also recommended to determine the role SBDM can play in articulation and integration of vocational and academic education.

Table 2. School-Based Decision-Making Survey Population

	NUMBER SURVEYED	NUMBER OF RESPONSES	PERCENTAGE OF RESPONSE
TOTAL NO. HIGH SCHOOLS	69	69	100.0
PRINCIPALS	69	43	62.3
COUNSELORS	69	42	60.9
ACADEMIC TEACHERS	207	122	58.9
English	69	42	60.9
Mathematics	69	34	49.3
Science	69	46	66.7
VOCATIONAL TEACHERS	213	117	54.9
Agriculture	34	25	73.5
Home Economics	58	30	51.7
Business	47	26	55.3
Marketing	11	6	54.5
Health Services	2	1	50.0
Technology Ed.	45	21	46.7
Industrial Ed.III	3	0	0.0
Special Voc. Ed.	13	7	53.8
TOTAL NO. INDIVIDUALS	558	324	58.1

ABSTRACT

The major focus of this study was to examine effects of school-based decision making on vocational programs in secondary schools; however, the study also addressed the schoolwide context of curriculum and school personnel's perceptions of the quality of the SBDM decision-making process. Responses from a survey of school personnel represented a 58 percent return from a survey sent to 558 principals, counselors, English teachers, mathematics teachers, science teachers, and vocational teachers. These responses came from 69 of the 70 SBDM secondary schools identified on a list prepared by the Kentucky Department of Education as schools implementing SBDM in the 1991-92 school year. One of the 70 schools did not implement SBDM this year and, therefore, was dropped from the research.

Research findings indicated that 67 percent of school personnel in Kentucky's SBDM high schools in the 1991-92 school year believed that SBDM improved the quality of decision making during the initial year of operation, and 82 percent expected the process to improve school decision making next year. The highest percentage of positive responses came from school principals. No major shifts in vocational education programming took place in the SBDM schools last year; the addition of vocational classes or programs exceeded deletions. Forty-two percent of returned survey instruments reported increased interaction of vocational and academic teachers, with the degree of integration of vocational and academic programs rated as a low to moderate increase.

INTRODUCTION

Purpose of the Study

As part of decentralization required by the 1990 Kentucky Education Reform Act (KERA), all Kentucky schools must implement school-based decision making (SBDM) by 1996. For the 1991-92 school year, each school district was directed to implement SBDM in at least one school, with schools selected for implementation to be chosen by the districts based on faculty votes for SBDM. This research examines 69 Kentucky secondary schools initiating SBDM and utilizing school councils during the 1991-92 school year. Since curriculum is a major responsibility for school councils and since most of Kentucky's high schools offer one or more vocational programs as part of their curricula, this study was conducted to determine how implementation of school councils affects secondary vocational education programs. Principals, academic teachers, counselors, and vocational teachers in SBDM schools were asked about their perceptions of SBDM's effect on the quality of decision making, the school curriculum, and vocational education programs. Involvement of vocational personnel in school councils and schoolwide committees was also assessed.

Problem Statement and Limitations

Because 1991-92 was the first year for operation of school-based decision making under KERA and because SBDM was only one of the KERA 1991-92 initiatives affecting school curriculum, this study was not designed to quantitatively establish cause and effect for changes taking place in the schools during the first year of

SBDM. This qualitative research was designed for school personnel to reflect on changes taking place in their schools that they perceived to be results of SBDM, particularly as related to vocational programs. Through a survey approach, the study gathered responses related to the following major questions:

1. Does SBDM affect the quality of decision making?
2. Have changes in curriculum, classes, programs, or vocational enrollments taken place during the first year of SBDM implementation?
3. Has SBDM resulted in more interaction of academic and vocational teachers or more integration of vocational and academic content?
4. Have changes taken place in the allocation of time and resources for programs?
5. Did school councils and schoolwide committees include vocational representation?

Although the research asked specific questions to gain perceptions of the above issues as related to SBDM, respondents indicating significant change were asked to comment about why this change occurred. The inclusion of spaces for open-ended comments throughout the survey instruments was to verify whether change was perceived to relate to SBDM or to identify other reasons for change or lack of change. In addition, comments from respondents documented the variety of feelings or beliefs about the SBDM process. Shared vision, values, and goals are essential for change efforts to succeed (Jones & Bearley, 1987). Since comments from the surveys give insight into perceptions of strengths of SBDM and barriers to the process, findings from this study have implications for implementation in future SBDM sites.

School-based management may present a challenge to secondary vocational education programs because of the philosophic shift decision making holds for the bureaucratic structure of education and, particularly, of vocational education (Ashe, 1992). The bureaucratic control mechanisms have helped vocational education maintain a strong presence in schools. Compliance standards through federal legislation, along with strong state departments of education, fostered a separateness in funding and administration and supported the added costs for equipment and laboratory/shop experiences. School reforms, by giving more autonomy to schools and by moving the bureaucratic state function toward assistance rather than compliance, placed more responsibility on local support to maintain vocational education programs as a viable part of the school curriculum. Because of the importance of vocational educators' involvement in local decision making, this research on Kentucky's secondary SBDM schools provided perceptions of vocational education's representation in school councils and schoolwide committees, as well as curriculum changes affecting vocational programs.

CONCEPTUAL FRAMEWORK

The Kentucky Education Reform Act (KERA) proposed to improve schools by establishing valued outcomes and performance standards for students, by holding schools accountable for these outcomes, and by giving more autonomy to local schools and communities to determine how to achieve the outcomes. Site-based management, akin to participatory management in business, proposes to improve

performance by making those closest to delivery of services--teachers and principals--more independent and therefore more responsible for results (Hill & Bonan, 1991). Site-based advocates also believe that increased involvement in decision making gives teachers and principals a sense of ownership and a personal sense of responsibility. School-based decision making is expected to follow consultative processes that result in consensus and "'good' decisions--ones that all parties can support" (Seddon, Angus, & Poole, 1990, p. 44).

Inherent in the Kentucky mandate to implement SBDM is the expectation that participation at the school level enables decisions to be made more efficiently and effectively (Evers, 1990). The idea that the quality of decision making can be improved by SBDM is supported by a report of SBDM sites in West Virginia (West Virginia Education Association, 1991). The West Virginia report states that "Participatory decisionmaking can promote better decisions and their more effective implementation. Broader participation expands the range of concerns and perspectives that are considered in reaching more comprehensive conclusions" (p. 6). A study of shared decision making in Los Angeles Unified School District (Rothstein, 1990) listed two reasons for this reform (p.9):

(1) Members of the school community should be more committed to decisions if they participate in them.

(2) The process should lead to better decisions drawing on previously underutilized expertise of participants, particularly teachers.

Since curriculum is a major area of responsibility for school councils as outlined by KERA and since one or more vocational programs are a part of the curriculum in almost all of Kentucky's high schools, school personnel were asked whether significant curriculum changes took place in the SBDM schools; and, if so, their perceptions about what caused the changes. House Bill 940 (Kentucky Acts, 1990) outlined specific school council responsibilities for policy making in these curriculum areas (p.40):

1. Determination of curriculum, including needs assessment, curriculum development, alignment with state standards, technology utilization, and program appraisal within the local school board's policy;

2. Assignment of all instructional and non-instructional staff time;

3. Assignment of students to classes and programs within the school;

4. Determination of the schedule of the school day and week, subject to the beginning and ending times of the school day and school calendar year as established by the local board;

5. Determination of school space during the school day;

6. Planning and resolution of issues regarding instructional practices;

7. Selection and implementation of discipline and classroom management techniques, including responsibilities of the student, parent, teacher, counselor, and principal; and

8. Selection of extracurricular programs and determination of policies relating to student participation based on academic qualifications and attendance requirements, program evaluation and supervision.

As part of anticipated curriculum changes, academic and vocational teacher interaction and academic and vocational

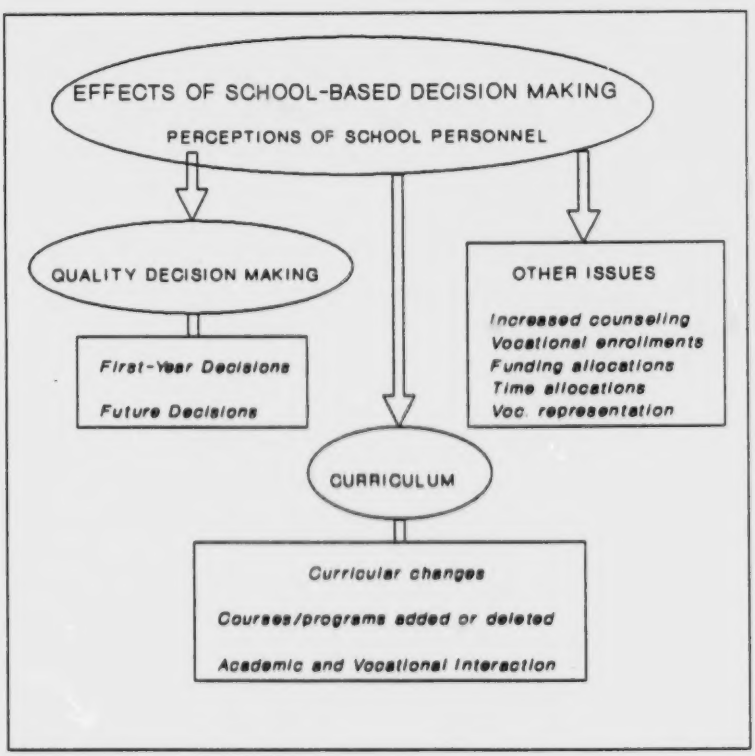
integration of subject content in SBDM schools were examined by this study. Articulation of vocational and academic education relates to a number of educational improvement strategies currently underway. KERA's curricular framework includes knowledge integration and real-world knowledge applications. Vocational federal legislation, The Carl D. Perkins Vocational and Applied Technology Education Act of 1990, placed requirements on vocational education to measure learning gains not only in work skills but also in basic and more advanced academic skills. State programs and activities using federal funds under the Perkins Act must include "curricula that integrate vocational and academic methodologies; and curricula that provide a coherent sequence of courses through which academic and occupational skills may be measured. . . ." (American Vocational Association, 1990, p. 78). The Southern Regional Education Board (SREB)-State Vocational Education Consortium is currently engaged in a curriculum integration project with 38 schools in 16 states (SREB, 1990). Because of the state and national emphasis on academic and vocational integration and because SBDM involves substantial faculty interaction, multiple items in this study related to curriculum articulation and integration.

Chapman (1990), in school-based decision making research in Victoria, Australia, noted that cross-faculty interaction arising from committee work focused on the school as a whole rather than subject or departmental concerns and was of value in gaining a wider perspective on educational issues (p. 236). With the

potential for more faculty interaction on curriculum issues, SBDM may contribute to more academic and vocational linkages.

This research framework centered around curriculum changes with emphasis on vocational education; however, vocational education was viewed from the broader context of school decision making and curriculum issues. As depicted in Figure 1, perceptions gathered from school personnel related to three major areas: (1) quality of decision making, (2) curriculum changes and relationships between academic and vocational education, and (3) curriculum-related issues which serve as indicators of change in curricular emphasis--counseling services, program enrollments, funding, scheduling, and vocational involvement in SBDM.

Figure 1. Effects of School-Based Decision Making as Perceived by School Personnel



METHODOLOGY

Identification of Survey Population

Secondary schools for this study were identified from a SBDM school list prepared by the Division of School-Based Decision Making, Kentucky Department of Education. This list showed Kentucky schools, as of July 1991, which would be operational with school-based decision making in the 1991-92 school year. Seventy high schools (including one locally operated area vocational center) were on the Department of Education list, and all 70 were selected for the study. To gain a broad perspective of school personnel's attitudes toward school-based decision making and its effects, the population for this study was made up of principals, counselors, academic teachers, and vocational teachers.

Names of current personnel in SBDM schools were obtained from the Office of Special Instructional Services and the Office of District Support Services in the Kentucky Department of Education. Questionnaires were sent to the principal, a counselor, 3 academic teachers (English, mathematics, and science), and a vocational teacher for each vocational program in the high school (or to a designated vocational department head). The selection of academic teachers in multiple-teacher programs came from the Personnel Staff Data forms, with random selection of teachers who taught English I or II, Algebra I, Biology, or General Science. Unless one teacher was designated vocational department head, vocational teachers from each department were randomly selected. In identifying principals for the SBDM secondary schools, the

researcher found that 25 of the 70 schools had changed principals for the 1991-92 school year. This number of new principals represented a 36 percent turnover for administrators of the SBDM secondary schools.

At least one response was returned from all 70 schools surveyed. A respondent from one school sent a note saying that SBDM was not implemented this year; therefore, that school was dropped from the study--leaving a total of 69 schools. Of 558 persons contacted in SBDM schools, 324 questionnaires were completed and included in the survey results, for an overall response percentage of 58.1. Table 1 shows the survey numbers mailed and response rates. Since the initial response rate was good and the school year for local districts ended before all responses were received and tabulated, no survey follow-up activities were conducted.

Table 1. School-Based Decision-Making Survey Population

	NUMBER SURVEYED	NUMBER OF RESPONSES	PERCENTAGE OF RESPONSE
TOTAL NO. HIGH SCHOOLS	69	69	100.0
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Health Services	2	1	50.0
Technology Ed.	45	21	46.7
Industrial Ed.III	3	0	0.0
Special Voc. Ed.	13	7	53.8
TOTAL NO. INDIVIDUALS	558	324	58.1

Survey Instruments

Four separate questionnaires were used for the survey, one for each job title: principal, counselor, academic teacher, and vocational teacher. The questionnaires for each job title contained items common to all positions, as well as items unique to the particular group. Questionnaires for principals and counselors were designed from a schoolwide perspective while teachers' survey instruments were more program-centered. Copies of questionnaires and letters used in the survey, along with a matrix showing common items for job titles, are found in the appendix of this report.

Section 1 of all questionnaires contained dichotomous "Yes" or "No" questions with comment lines after each response. All questionnaires had the first three questions in common, and Section 1 for academic teachers contained only these three questions. Section 1 was identical for principals and counselors with a total of 11 questions. Vocational teachers had the first eight of these questions.

The other major section on the questionnaires was a Likert-type rating scale (0-4) on statements which respondents rated according to their belief about the degree of influence SBDM either had this year or was expected to have next year on vocational and academic interaction or integration. Questionnaires for all job titles had the same first six statements. Vocational and academic teachers had two additional items which related to subject content. An item related to change in counseling services was added to the first six rating items on the counselors' questionnaire.

The principals' questionnaire asked for numbers of vocational teachers or vocational advisory committee members who were serving on the school council or on schoolwide committees of the council. The vocational teacher questionnaire also included two questions about representation on the council or committees.

Prior to sending questionnaires to schools, copies of all questionnaires were reviewed for content validity by a panel of three persons representing expertise in school councils, vocational administration, and secondary vocational programs. Questionnaires were completed by the principal, counselor, and teachers in one pilot SBDM secondary school. Minor modifications were made in the instrument based on comments from the review panel and pilot site.

Analysis of Data

A correlation analysis for internal reliability was run on the six Likert rating items common to all questionnaires. The Cronbach Coefficient Alpha for total responses was .938; when analyzed by categories of job title, the lowest Coefficient Alpha was .912 for vocational teachers. Tables of the statistical internal reliability tests are included in the appendix of this report.

Survey responses were entered in a computer data file coded by school, job title (principal, counselor, academic teacher, or vocational teacher), and the specific subject area for teachers (English, mathematics, science, agriculture, business, etc.). Responses from Section 1 of the questionnaires were analyzed through frequency tables and Chi-square analysis. Comments were compiled for each question and grouped as negative or positive.

The section of the questionnaire with ratings of items for degree of SBDM influence were analyzed through calculation of the mean, standard deviation, standard error, and variance--both for total responses and by job title. In addition, an analysis of variance using the general linear models procedure was calculated for these ratings. Statistical tables obtained through these analyses of survey data are included in the appendix of this report.

SURVEY RESULTS

Results from survey responses are grouped under the major questions addressed through this study: quality of decision making; curriculum, class, or program changes; academic and vocational interaction or integration; allocation of time and resources; and vocational representation on school councils and schoolwide committees.

Does SBDM affect the quality of decision making?

Questions 1 and 2, Section 1, asked about SBDM's effect on the quality of decision making. Analysis of total responses to these questions indicated generally positive perceptions of school-based decision making and its potential for improving the quality of school decisions. About two-thirds (66.8 percent) of survey respondents regarded SBDM as having a positive influence this year on the quality of decision making. An even higher percentage (81.9) expected the SBDM process to improve the quality of future school decisions.

As summarized in Table 2, principals and academic teachers viewed SBDM's impact on decision making in the 1991-92 school year

much more positively than did counselors and vocational teachers. Only slightly more than half of the counselors and a similar percentage of vocational teachers believed decision making was improved this year. A significantly higher percentage of principals responded positively to the benefits of SBDM for the decision-making process.

Table 2. Positive Effect of SBDM on Quality Decisions

		QUESTION 1				QUESTION 2			
		THIS YEAR (p = 0.039)				FUTURE (p = 0.007)			
		YES		NO		YES		NO	
JOB TITLE	n[a]	f	%	f	%	f	%	f	%
Principal	43	34	81	8	19	38	97	1	3
Counselor	42	25	59	17	41	28	68	13	32
Acad Tchr	122	84	71	34	29	97	84	19	16
Voc Tchr	117	70	60	47	40	91	80	23	20
TOTALS	324	213	67	106	33	254	82	56	18

[a]This column represents the total survey forms returned. Frequency totals for each question may differ because of no response to the particular question. Percentages are calculated on total responses to the question.

All job titles expressed greater optimism about future benefits of SBDM on the quality of decisions. The percentage of principals responding positively to Question 2 came close to 100 percent--a somewhat surprising result since SBDM changes the role of the principal and could be regarded by school administrators as an encroachment on previously exercised autonomy. At least three factors must be considered in interpretation of this highly positive response by principals:

(1) Over one-third of principals in SBDM secondary schools were new to the position. This principal turnover rate implies that persons previously in the position who were reluctant to make KERA changes may have opted for retirement or accepted a different position.

(2) Schools initiating SBDM in 1991-92 did so voluntarily; therefore, the percentage of positive attitudes toward the process would likely be more positive than could be expected when the process becomes a mandate for all schools.

(3) As a school leader, the principal has a vested interest in the success of new school initiatives and because of implicit expectations of the position may report results with a "halo" effect.

Even considering the above three factors as a positive bias, the high percentage of positive responses by principals leads to the conclusion that most principals in secondary SBDM sites this year perceived the SBDM process as positive for quality decision making, and the principals regarded SBDM more positively than teachers or counselors. On the other hand, counselors in SBDM schools reported the lowest percentage of positive responses about SBDM's effect on decision making. Both principals and counselors hold positions that are schoolwide in scope; however, principals are held more directly accountable for school success.

All responses to Questions 1 and 2 did not include comments or reasons; however, of the 54 comments which related to SBDM's effect on the quality of decision making, 27 were categorized as negative; 22, positive; and 5, neutral. Negative comments related to the slowness of the process, lack of cooperation within the council or from central office, lack of direction and vision of what to do, control of the council by the school administrator, administrative

control of school council membership, jealousy between teachers and administrators, lack of information, and not enough training.

A few persons commented that politics still play a part in school decisions: "Teachers just have to kiss up to a different group." "Politics moved from the central office to the school building floor." "Overall I think SBDM has been positive in our school, but one problem that I have seen is the ability of some people to use their power to take care of themselves. . . .In other words, it brings politics down into the school level and along with it, all of the advantages and disadvantages of politics." "Staff assignments and new appointments to fill positions still follow the old crooked political scheme that has always been in practice except now they can conveniently blame it on the committee."

Another survey respondent expressed concern that "The greatest frustration of our SBDM council is conflict with central office/school-based who seem reluctant to allow us to be self determining. Our site-based decisions are often overruled by board policy that is vague or manipulative or both." Another comment reflected doubt about the process: "Business doesn't allow a team of employees to dictate. Why should it work?"

The most frequent positive comments (10 of 22) had to do with increased input from parents and teachers. Other positive comments noted that reasons are given for decisions, more information is available to everyone, and more improvement will come each year as members are trained. A particularly positive note was reflected by

a comment that "Getting decisions out of the backroom political climate will continue to improve the school."

Other comments expressed a degree of optimism that a foundation was set for improvement: "Improvement will come when the council has direction, vision, or more training." "Everything is new--it will take a while." "Not enough time yet." "Council took it slowly and developed policies just coming into effect. As implemented, the school will improve."

The overall preponderance of positive responses about SBDM's effect on the quality of decision making leads to the conclusion, however, that most school personnel in secondary schools with operational school councils believe that SBDM has had and will have a positive effect on the quality of school decisions.

Have changes in curriculum, classes, programs, or vocational enrollments taken place during the first year of SBDM implementation?

Questions 6, 7, 8 (Section 1) of the questionnaires for principals, counselors, and vocational teachers addressed curriculum or course changes. Respondents answered "Yes" or "No" to additions or closures of vocational programs or classes and to whether or not other curricular change took place as a result of SBDM. Total responses to Question 6 reflected 31.6 percent indicating additions of vocational programs or classes versus 17.1 percent of responses to Question 7 which noted closures of vocational programs or classes. A total of 42.5 percent responding to Question 8 said that other curricular changes took place as a

result of SBDM this year. Chi-square analyses for these three questions by job title resulted in $p > .05$.

Only 62.1 percent of "Yes" responses to curricular change in Questions 6, 7, and 8 added comments showing what changes took place. Table 3 summarizes written comments for these three questions.

Table 3. Course or Curricular Changes in SBDM High Schools

QUESTION 6 VOC PROGRAMS/ CLASSES ADDED	QUESTION 7 VOC PROGRAMS/ CLASSES CLOSED	QUESTION 8 OTHER CURRICULAR SBDM CHANGES
Agriculture (2)	Agriculture	Academic
Ag Semester course	Home Economics (3)	Study Skills .5 cr
Business	Cut 1.5 H Ec tchrs	Career Awareness .5
Bus. Communication	Food Preparation	Humanities (2)
Automated Accounting	Marketing/Business	Math Dept changes
Word Processing II	Business Economics	Pre-algebra
Finance & Banking	Intro. to Business	Math program change (3)
Keyboarding	Retailing	Foreign language
Computer Application	Typewriting II (3)	More writing courses
Business Law	Shorthand (3)	Reqd Keyboarding (3)
Business Mgmt.	Recordkeeping (4)	Social Studies
Middle Sch. Business	Business Law	Applied Soc. Studies
Hospitality Program	Intro to Computers	Physiology
Health field courses	Accounting II	Added computers (2)
Home Economics	Finance & Banking	General Studies
Family Parenting	Entrepreneurship	Added Leadership class
Preschool	Economics	for upper classmen
Child Dev/Parenting	Industrial Arts	Senior Seminar
Life Skills	.5 time HVAC course	Journalism
Tech Prep (6)	Upper classes	Schedule change to
Graphic Arts	Semester classes	alternating days
Tech Math	Voc Sch Related	Problem solving
Modular Tech Units	Shop	4 yrs Math, Science,
Intro. to Technology	Carpentry	& Geog. requirement
Cooperative Ed. (2)	Voc electives tchr	Early A.M. classes
7-8th Crafts class		Tech Prep diploma
JTPA Career Ed.		2 diplomas--had 3
Interdisciplinary--		7-period day (4)[a]
Agri/Biology and		8 periods from 9
Nutritional Chem.		Replaced homeroom[b]
		Changed college prep
		Changed 4 one-year
		classes to sem classes
		No more .5 cr allowed for
		1 credit classes
		Monthly perf. events

[a]Implementing or considering change to a 7-period day

[b]Replaced homeroom with Pupil-Assisted Learning (PAL)--20 minutes for tutoring, clubs, etc.

Questions 6 and 7 made no distinction between program or classes; therefore, net gain or loss cannot be accurately determined for any program area. Changes in vocational programs or classes, as reflected in Table 3, showed more changes in business than any other area--more additions but also more closures with a slight net loss of classes. Tech Prep accounted for about 17 percent of program increases specified by survey respondents.

Other SBDM curricular changes covered a variety of areas such as classes taught, time schedules, graduation requirements, and the number of periods in a school day. Unique additions included implementation of more writing courses, a leadership class, senior seminar, problem solving class, and monthly performance events.

Question 4 in Section 1 of the questionnaires for principals, counselors, and vocational teachers asked if significant changes had taken place in vocational program enrollment and, if so, whether the change was an increase or decrease. Out of 195 total responses to this question, 26.2 percent (51 respondents) said "Yes" that vocational enrollment change did occur. Of this number, 30 persons checked "Increase" while 17 checked "Decrease" (4 did not indicate increase or decrease). Chi-square analysis by job title resulted in $p > .05$. All questions were prefaced with a statement that the purpose was to measure the effect of school-based decision making; therefore, this survey did not reflect all enrollment changes.

Analysis of vocational teachers' responses by program area indicated areas which may have experienced the greatest enrollment

change: agriculture classes, 4 enrollment increases, 1 decrease; business and marketing, 11 increases, 5 decreases; and home economics, 6 increases and 4 decreases. Of enrollment changes specified by vocational teachers, 11 more teacher responses reported enrollment gains than gave enrollment decreases. **Enrollments in vocational programs in SBDM schools showed overall increases this year with business reporting the most enrollment gain, despite the fact that more business classes were closed.** Enrollment gains in business may have resulted from additional computer classes and required keyboarding classes which enroll larger numbers versus deletion of advanced classes such as Typewriting II, shorthand, and Accounting II which typically have lower enrollments.

A variety of reasons were given for enrollment increases: change to a 7-period day (mentioned 5 times); addition of Tech Prep or other new programs (mentioned 6 times), more use of computers (2 times), and keyboarding added to graduation requirement (listed twice). Other reasons listed included active recruitment by vocational teachers, addition of two interdisciplinary classes, teacher change, change in technology education, and change in other vocational course offerings.

All except one of the reasons given for enrollment decreases related to emphasis on precollege curriculum and academic classes (listed 9 times). The other comment attributed decreased enrollment to shortage of local funding.

Question 11 on the principal and counselor surveys asked if significant change took place in the number of high school students attending the vocational school, whether the change was an increase or decrease, and the reason for change. "Yes" responses made up 12.2 percent of total responses to this question. Of the 9 responses reporting significant changes in vocational school enrollment, 7 said these changes were enrollment increases. Only two of these responses included reasons for changes in the number of students attending the vocational school--one respondent said Tech Prep increased enrollment, and the other said the enrollment decline took place over two years and was not related to SBDM.

Survey responses showed no overall major changes or trends in curriculum, classes, programs, or enrollments. Vocational programs in SBDM schools this year had slight gains in programs or classes and in enrollments. Less than half of respondents (42.5 percent) listed SBDM curriculum-related changes in areas other than vocational education; however, changes listed in the survey revealed that councils are beginning to examine scheduling practices and are generating new classes such as leadership, problem solving, and multi-disciplinary classes in agri-biology and nutritional chemistry.

Has SBDM resulted in more interaction of academic and vocational teachers or more integration of vocational and academic content?

A series of questionnaire items asked about interaction and integration of vocational and academic education. "Yes" responses accounted for 42.3 percent of total responses to Question 3,

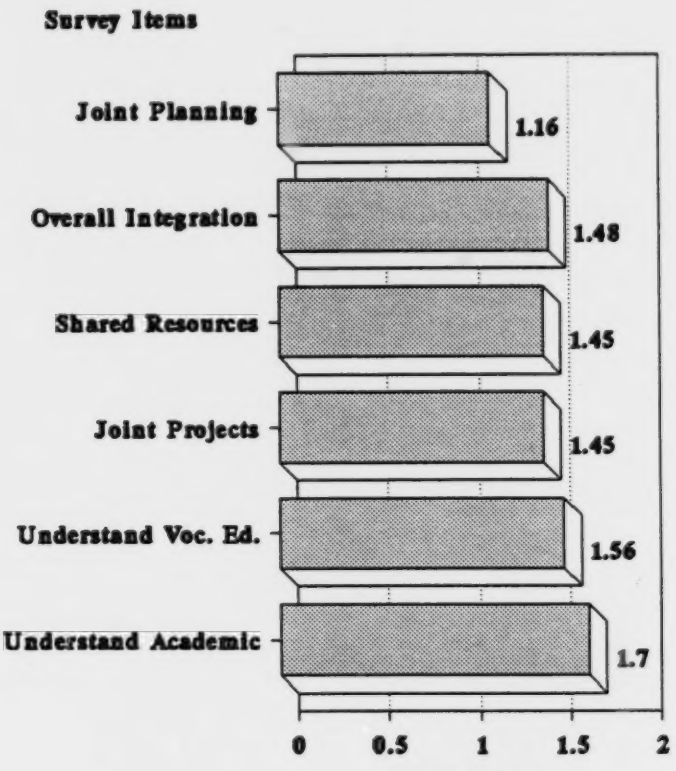
Section 1, which asked if SBDM resulted in more interaction between academic and vocational teachers. Fifty-one percent of principals said there was more interaction; the percentage of "Yes" responses from principals exceeded the positive percentage from any other job title. Chi-square analysis of responses to this question by job title showed $p > .05$.

Nineteen persons who answered "No" explained that working relationships between the academic and vocational teachers in their schools had always been good. Four who answered "Yes" said that the increased interaction was not due to SBDM. Two persons who responded "Yes" added that these teachers had never worked together before SBDM. Four "No" responses cited increased apprehension, interdepartmental jealousy, and a "tug-of-war" over funding. One comment from an academic teacher said that interaction is greatly needed and long overdue.

In the second major section of the questionnaire, six academic and vocational integration items were rated by all job titles: (1) joint planning, (2) overall integration, (3) shared resources, (4) interdisciplinary projects, (5) understanding of vocational programs by academic teachers, and (6) understanding of academic programs by vocational teachers. Items were rated in terms of the degree of influence school council decisions had this year or will have on next year's programs: 0 No effect, 1 Limited effect, 2 Moderate effect, 3 Significant effect, and 4 Great effect. Figure 2 depicts the mean for all response ratings of the degree of SBDM influence for each of these items. Individual response ratings

ranged from 0 to 4; however, the mean for all composite ratings ranges from (1) limited effect to slightly below moderate effect (2). The range of means for the six items showed little variation with the lowest mean of 1.16 for joint planning and the highest, 1.70 for better understanding of academic programs by vocational teachers.

Figure 2. DEGREE OF SBDM INFLUENCE
Vocational and Academic Integration



Rating Scale 0 to 4; n= 324; p<.05

Table 4 shows the mean rating, standard deviation, and variance by job title for Items 5 and 6 in comparison to the mean rating, standard deviation, and variance for the survey ratings by

all survey respondents. All job titles rated Items 5 and 6 higher than the other four integration items. Principals gave the highest rating to Item 5 (better understanding of vocational education by academic teachers) while all other job titles showed the highest ratings for Item 6 (better understanding of academic education by vocational teachers). On the principals' survey, Item 3 (shared resources) tied with Item 6 for the second highest rating.

Table 4. Highest Mean Ratings for Academic/Vocational Integration Items

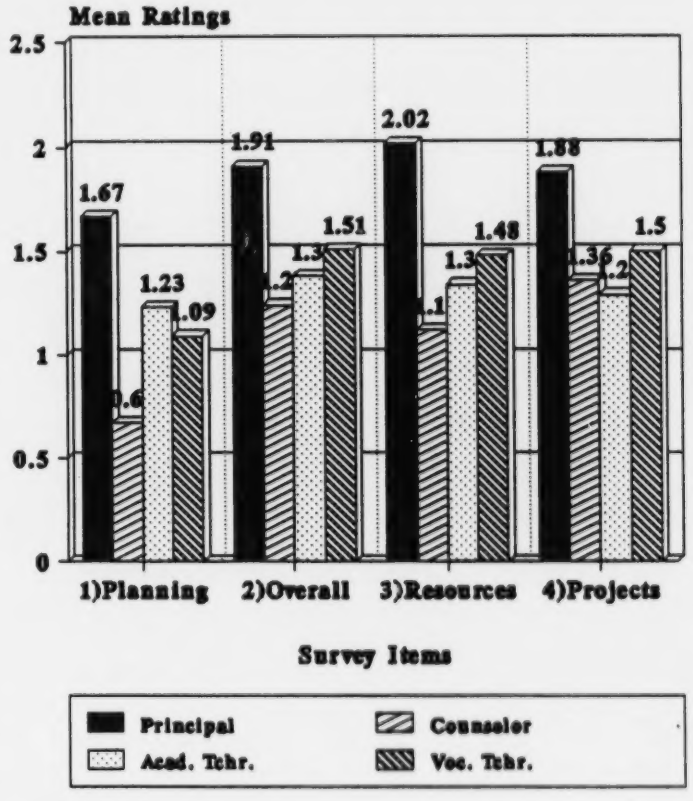
	Highest Rated Item				2nd Highest Item			
	Item	Mean	SD	V	Item	Mean	SD	V
Totals	6	1.70	1.23	1.51	5	1.56	1.24	1.54
Principals	5	2.07	1.26	1.59	6	2.02	1.20	1.45
					3	2.02	1.18	1.40
Counselors	6	1.57	1.25	1.57	5	1.38	1.08	1.17
Academic Teachers	6	1.48	1.24	1.54	5	1.45	1.28	1.65
Voc. Teachers	6	1.84	1.19	1.42	5	1.55	1.20	1.45

$p < .05$

Figure 3 displays the ratings by job titles for each of the items. Principals' ratings for all 6 items were higher than ratings by other job titles; principals' ratings for Items 1 (joint planning), 3 (shared resources), and 5 (understanding of vocational education by academic teachers) were significantly different ($p<.05$) from ratings by other job titles. For Item 2 (overall integration) and Item 4 (joint projects), principals' ratings differed significantly from ratings by counselors and academic

teachers. Principals' ratings of the degree of influence SBDM had on Item 6 (understanding of academic programs by vocational teachers) were significantly different from academic teachers' ratings for this item.

Figure 3. DEGREE OF SBDM INFLUENCE
Integration Ratings by Job Title



Rating Scale 0 to 4, n= 324, p<.05

Teacher questionnaires included two additional items about integration activities: (Item 7) academic content in vocational classes and (Item 8) occupational applications of academic content. Item 7 received a total mean rating of 1.71, and Item 8 was rated 1.49. Both academic and vocational teachers believed that vocational classes included more academic content, although the vocational teacher ratings were higher (1.90 compared to 1.52, $p<.05$). Vocational teachers' mean rating was slightly higher than academic teachers for the degree of increased occupational applications in academic classes (1.51 versus 1.48, $p>.05$).

Questionnaires for principals and counselors included a question which asked "Has school-based decision making resulted in more articulation with the vocational school?" Of all responses from principals and counselors, 25.3 percent answered affirmatively. Thirty-five percent of the principals answered "Yes" compared to only 15 percent of counselors.

Have changes taken place in the allocation of time and resources for programs?

Question 5 (Section 1) asked vocational teachers, counselors, and principals "Have significant changes taken place in allocation of funds for vocational programs?" Forty percent of respondents checked "Yes." Of those reporting change, decreased funding was checked almost twice as many times as increased funding (41 to 21). Of the 46 responses which included reasons for change, however, only 10 could be attributed directly or indirectly to SBDM; 3 increases and 7 decreases related to how funds were allocated

within the school. Three responses stated specifically that changes took place but that the changes were not due to SBDM.

Twenty persons noting decreases commented that losses were due to reduced funding for vocational education from the state and/or federal levels. Three respondents attributed decreased funding to central office cuts and not the school. Ten comments attributed increased funding to state or federal funding (4 of these responses noted vocational grants or additions for new programs).

During the first year of SBDM, little effect on funding can be attributed to school council allocations. Of respondents indicating a change in funding and also designating this change as increase or decrease, 18 percent indicated decrease in funding for vocational programs but most of these decreases were due to a reduction in funding from the state and/or federal levels.

No trends were noted in changes in allocations of time for classes or for joint planning of academic and vocational teachers; however, two schools mentioned changing some classes from a full year to semester classes. Consideration or implementation of a 7-period day was underway in some schools.

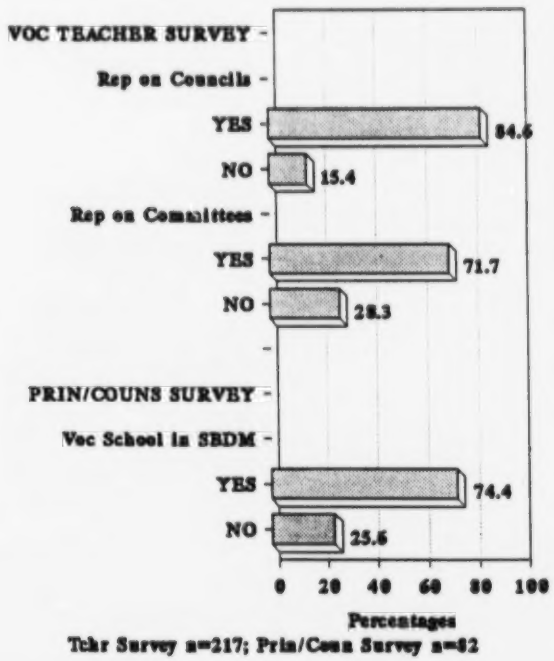
Counselors were asked to rate the degree of influence they believed school council decision making had this year or will have next year on increased counseling activities in career planning and course selection for vocational students. Counselors gave a mean rating of 2.00, indicating a moderate degree of influence. SBDM's influence on career planning and course selection resulted in a

moderate increase in counseling activities, according to counselors responding to the survey.

Did school councils and schoolwide committees include vocational representation?

The level of involvement of vocational personnel in school councils and school-based decision making was another area examined through the survey. Vocational teachers responded "Yes" or "No" to two questions on representation: "Have vocational programs had repesentation on the school council or committees of the council?" and "Are vocational teachers serving on school-based committees affecting the total school program?" Principals and counselors were asked if vocational school personnel were represented in the school-based decision making process. Figure 3 portrays the survey results for these three questions.

Figure 4. VOCATIONAL REPRESENTATION



Tchr Survey n=217; Prin/Couns Survey n=82

Types of schoolwide committees on which vocational teachers served are finance, curriculum, technology, student support services, community relations, attendance, writing assessment, handbook, 7-period day, facilities and space, student policy, scheduling, guidance, buildings and grounds, needs assessment, leadership, grading, and rewards. Principals and counselors listed the following ways for involvement of vocational school personnel in SBDM: member of SBDM Council (19), committee members (14), written or verbal input to council members, or participation in meetings.

Principals were also asked to give the numbers of vocational teachers serving on the school councils, vocational teachers serving on schoolwide committees, and parents on the school councils who are also members of a vocational advisory committee. Table 5 is a summary of the results. The number columns contain the numbers reported by the principals as serving on the council and committees, and the percent columns represent the percentage of principals who reported each number. Twenty of the 43 schools represented by the principals' survey responses (46.5 percent) did not have any vocational teachers on school councils, but only 5 (12.2 percent) did not have vocational teachers on schoolwide committees. Based on data reported by principals, the average number of vocational teachers was less than one per school council (0.63) while the number of vocational teachers on committees averaged about 4 per school. Of principals' responding, 27.5

percent had parents on school councils who were also vocational advisory members.

Table 5. Vocational Representation in School-Based Councils or Schoolwide Committees

Vocational Teacher Representation				Voc. Adv. Parents	
Number on School Council		Number on School Committee		Number on School Council	
Number	Percent	Number	Percent	Number	Percent
0	46.5	0	12.2	0	72.5
1	46.5	1	9.8	1	15.0
2	4.7	2	12.2	2	7.5
3	2.3	3	14.6	4	2.5
		4	14.6	5	2.5
		5	9.8		
		6	4.9		
		7	4.9		
		8	4.9		
		9	2.4		
		10	7.3		
		11	2.4		
n=43 responses		n=41 responses		n=40 responses	

A cross check of vocational teacher responses and principal responses about vocational teacher representation on school councils and committees reflected differences. The principals showed vocational teacher representation on 53.5 percent of the school councils, while 87.8 percent of the principals' responses reported membership of vocational teachers on schoolwide committees. In contrast, the vocational teacher survey showed 84.6

percent representation on school councils and membership on schoolwide committees in 71.7 percent of the schools.

Of the 68 schools responding to the questions on representation, 34 were common to returns from both principals and vocational teachers. Responses from the vocational teachers represented more different schools than the principals' returned surveys (59 or possibly as many as 62 of the 69 SBDM schools; 3 teachers removed the school code from the questionnaire). Responses from the principals' survey represented 43 total schools.

Also, principals were asked specifically for the number of vocational teachers on the councils and committees for the 1991-92 school year while the question to vocational teachers did not include the year in the wording of the question (directions to teachers asked for effects of SBDM and involvement on councils - "Yes" or "No"). Based on these differences, the researcher estimates that 60 to 70 percent of school councils have vocational teacher representation.

SUMMARY AND RECOMMENDATIONS

This study of the first operational year for school-based decision making in 69 Kentucky high schools not only describes school personnel's perceptions of the SBDM process, changes effected in these schools, and involvement of vocational personnel in the process but also reflects the frustrations and satisfactions expressed in comments of survey respondents. Although this research found a high percentage of school personnel optimistic about the potential of SBDM for improving school decision making,

more information and training should be provided for council members, and the process should be streamlined to avoid excessive delays in decision making.

The positive attitudes toward SBDM and the improvement (although limited) in mutual understanding of programs, as well as the accentuation of competition and jealousy in a few schools mirror findings in a study of the first year of shared decision making in the Los Angeles Unified School District (Rothstein, 1990).

Because some school districts still have administrators who struggle to maintain autocratic control and refuse to cooperate with school councils and because some council members reportedly have their own agendas and do not cooperate within the council, more training for principals, superintendents, and council members is needed in the leadership training skills of facilitating behaviors and participative management.

With KERA implementation, a legitimate concern for both academic and vocational teachers is the potential for overlap and inconsistency of content unless interactive planning and sharing of information take place. As academic teachers develop performance tasks and relevant applications of subject content, both consumer and occupational tasks will be incorporated--many of which may also be carried out in vocational classes. Conversely, as vocational teachers incorporate more basic academic content into occupational fields, duplication and inconsistencies will likely occur. Instead of students experiencing holistic learning and knowledge

integration, a danger exists that confusion and boredom may result. Cross-discipline teacher interaction becomes an imperative rather than an option if meaningful education is to occur. Vocational and academic teachers have unique expertise to contribute to curriculum development and performance assessment. SBDM, as a mechanism that promotes collaboration, can bring teachers together in schoolwide planning committees and in school council discussions, thus helping to break down the walls of separatism between academic and vocational education. There is some evidence from this study that SBDM, in a limited way, is increasing vocational and academic interaction. Schools that brought academic and vocational teachers together to work on Tech Prep planning, schoolwide issues, and KERA activities such as writing portfolios gave the most evidence of improving integration. Mutual understanding and respect are key factors in successful integration projects (SREB, 1990). SBDM school ratings indicate a move toward mutual understanding by vocational and academic teachers. Some improvement, although minimal, was also noted for increased articulation of the high schools with the vocational schools.

Vocational funding continues to be somewhat divisive, although for a different reason than in past years. Historically, vocational education received add-on funding from state and federal sources; and in many instances, vocational teachers exercised considerable autonomy over the use of these funds. Although the practical hands-on experiences made vocational classes more expensive to operate, academic teachers who had larger class loads

and less money to use sometimes resented the differences. With KERA, academic teachers as well as vocational teachers will need additional materials and time in order to plan and carry out relevant performance activities; therefore, differences at the secondary level will be less. Also, SEEK funding for vocational programs no longer has an add-on factor, and vocational funding is shrinking from both federal and state sources with programs such as Tech Prep and integration projects including academic as well as vocational teachers. The competition for fewer available dollars, however, can be counterproductive to teamwork; and every effort should be made in the decision-making process to avoid pitting academic programs against vocational programs in funding decisions.

The weakening of the bureaucratic support for vocational programs places heavy responsibility on local administrators and teachers to ensure that quality vocational and academic opportunities are provided for <u>all</u> secondary students. Vocational and academic programs have mutually supportive roles to play in accomplishing <u>all</u> 75 valued outcomes. Some of these outcomes can best be taught explicitly by academic teachers and reinforced implicitly by vocational teachers while others should be taught by vocational teachers with reinforcement in academic classes.

Representation of vocational programs in school council curriculum deliberations will be critical to inclusion rather than exclusion as schools work to improve student achievement of basic core competencies. A good beginning has been made in vocational representation and involvement; however, vocational teachers should

personally assume greater responsibility than ever before in disseminating information about vocational programs and how these programs contribute to the total school curriculum. On the other hand, vocational teachers must approach change with an open mind and be a part of local change efforts which promise student achievement returns in preparation for productive lives as informed citizens and employable, adaptable workers.

A major finding in this study resulted from comparisons of responses by job title. Principals' responses about SBDM and their ratings of influence on curriculum integration were significantly higher than counselors and teachers. Although some allowance must be made for positive bias due to role responsibilities and administrative turnover, these positive responses offer optimism for the future of SBDM. SBDM directly affects how principals function in a school; and if these individuals, who may be perceived as losing power by SBDM implementation, "buy into" the process, the operation of school-based decision making is likely to prove more successful. Principals will need more skill, not less, to work collaboratively with councils; and if they feel more empowered by bringing additional decisions to the school level, they may be more willing to share this power with others.

Continued study over a longer period of time with both qualitative and quantitative research will be essential to identify benefits, barriers, and successful practices related to school-based decision making. Curriculum-related issues and how school councils deal with these issues are of particular importance to the

school improvement effort. Further research is also recommended to determine the role SBDM plays in articulation and integration of vocational and academic education.

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APPENDIX

Principals' Letter and Questionnaire

Counselors' Letter and Questionnaire

Academic Teachers' Letter and Questionnaire

Vocational Teachers' Letter and Questionnaire

Summary of Common Questions and Items by Job Title

Statistical Data

- Frequency Tables for Survey Responses
- Chi-square Analysis of Responses to Section 1 - Questions 1-11 by Job Title
- Mean, Standard Deviation, Standard Error, and Variance for Likert Rating Items 1-9 (Combined Responses)
- Mean, Standard Deviation, Standard Error, and Variance for Likert Rating Items 1-9 (By Job Title)
- Analysis of Variance (General Linear Models Procedure) for Significant Differences of Likert Rating Items 1-9 by Job Title
- Internal Reliability Correlation Analysis for Likert Rating Items 1-6

UNIVERSITY OF KENTUCKY

College of Education

Vocational Education
43 Dickey Hall
University of Kentucky
Lexington, Kentucky 40506-0017

April 24, 1992

Dear Principal:

As the school year comes to a close, I know how busy you are; but please take 5 minutes of your time to help evaluate the effects of your school's implementation this year of school-based decision making. I have tried to save your time by enclosing a pen to answer the questionnaire and a return envelope for your convenience.

Your opinions about this year's operation of the school council will become a part of this research effort to determine curricular or other changes that may have resulted from its implementation in high schools. Individual responses will be kept strictly confidential, and published results of the research will only be in summary form. This research is being conducted through the College of Education at the University of Kentucky.

Your quick response to the questionnaire will be very much appreciated. A copy of the research results will be available upon request in the fall 1992.

Sincerely,

Joyce Logan

Joyce Logan
Assistant Professor

jpl

Enclosures 3

An Equal Opportunity University

SCHOOL-BASED DECISION MAKING
Questionnaire for School Principals

Directions. This questionnaire seeks to measure the effect of school-based decision making on vocational programs and the involvement of vocational personnel on these councils. Please mark the response that, in your professional judgment, corresponds to the situation in your school.

EFFECTS OF SCHOOL COUNCIL DECISION MAKING: Please answer the following questions "Yes" or "No." To give a reason for your answer, use the blank for Comment following the question.

Yes___ No___ 1. Do you believe implementation of the school-based council improved the quality of decision making for the school this year?

Comment:_____

Yes___ No___ 2. Do you believe the school-based decision-making process will improve the quality of future decisions for the school?

Comment:_____

Yes___ No___ 3. Do you believe academic and vocational teachers worked together more closely this year as a result of school-based decision making?

Comment:_____

Yes___ No___ 4. Have significant changes taken place in vocational program enrollment? Increase____ Decrease____

If change, give reason_____

Yes___ No___ 5. Have significant changes taken place in allocation of funds for vocational programs? Increase_____ or Decrease_____

If change, give reason_____

Yes___ No___ 6. Have any new vocational programs or classes been added? Type_____

Yes___ No___ 7. Have any vocational programs or classes been closed? Type_____

Yes___ No___ 8. Have any other curricular changes taken place as a result of school-based decisionmaking? Type_____

Yes___ No___ 9. Are vocational school personnel represented in the school-based decision making process?

If yes, how_____

Yes___ No___ 10. Has school-based decision making resulted in more articulation with the vocational school?

Yes___ No___ 11. Have significant changes taken place in the number of your high school students attending vocational school? Increase____ Decrease____

INVOLVEMENT IN SCHOOL COUNCIL ACTIVITIES: Please indicate the applicable number in each blank.

____ Number of vocational teachers serving on the school-based council during the 1991-92 school year.

____ Number of vocational teachers serving on committees of the school-based council during 1991-92.

____ Number of parents serving on the school-based council who are also members of a vocational advisory committee for your school.

Other Involvement of Vocational Personnel (please describe)

_____

Please circle the degree of influence you believe school council decisions either had this year or will have next year on vocational programs. 0 No effect, 1 Limited effect, 2 Moderate effect, 3 Significant effect, 4 Great effect.

0 1 2 3 4 Schedule changes or time allocations allowing more time for joint planning by academic teachers and vocational teachers.

0 1 2 3 4 More overall integration of academic and vocational education.

0 1 2 3 4 More shared resources between vocational and academic programs.

0 1 2 3 4 More interdisciplinary projects between academic and vocational classes.

0 1 2 3 4 Better understanding of vocational programs by academic teachers.

0 1 2 3 4 Better understanding of academic programs by vocational teachers.

THANK YOU FOR HELPING WITH THIS RESEARCH. PLEASE DESCRIBE BELOW ANY OTHER SIGNIFICANT CHANGES IN VOCATIONAL EDUCATION WHICH YOU BELIEVE RESULT FROM THE WORK OF THE SCHOOL-BASED COUNCIL AND ANY OTHER COMMENTS YOU WISH TO MAKE.

UNIVERSITY OF KENTUCKY

College of Education

Vocational Education
43 Dickey Hall
University of Kentucky
Lexington, Kentucky 40506-0017

April 24, 1992

Dear Counselor:

As the school year comes to a close, I know how busy you are; but please take 5 minutes of your time to help evaluate the effects of your school's implementation this year of school-based decision making. I have tried to save your time by enclosing a pen to answer the questionnaire and a return envelope for your convenience.

Your opinions about this year's operation of the school council will become a part of this research effort to determine curricular or other changes that may have resulted from its implementation in high schools. Individual responses will be kept strictly confidential, and published results of the research will only be in summary form. This research is being conducted through the College of Education at the University of Kentucky.

Your quick response to the questionnaire will be very much appreciated. A copy of the research results will be available upon request in the fall 1992.

Sincerely,

Joyce Logan

Joyce Logan
Assistant Professor

jpl

Enclosures 3

An Equal Opportunity University

SCHOOL-BASED DECISION MAKING
Questionnaire for School Counselors

Directions. This questionnaire seeks to measure the effect of school-based decision making on vocational programs and the involvement of vocational personnel on these councils. Please mark the response that, in your professional judgment, corresponds to the situation in your school.

EFFECTS OF SCHOOL COUNCIL DECISION MAKING: Please answer the following questions "Yes" or "No." To give a reason for your answer, use the blank for Comment following the question.

Yes___ No___ 1. Do you believe implementation of the school-based council improved the quality of decision making for the school this year?

Comment:_____

Yes___ No___ 2. Do you believe the school-based decision-making process will improve the quality of future decisions for the school?

Comment:_____

Yes___ No___ 3. Do you believe academic and vocational teachers worked together more closely this year as a result of school-based decision making?

Comment:_____

Yes___ No___ 4. Have significant changes taken place in vocational program enrollment? Increase_____ Decrease_____

If change, give reason_____

Yes___ No___ 5. Have significant changes taken place in allocation of funds for vocational programs? Increase____ or Decrease____

If change, give reason _____

Yes___ No___ 6. Have any new vocational programs or classes been added? Type_____

Yes___ No___ 7. Have any vocational programs or classes been closed? Type_____

Yes___ No___ 8. Have any other curricular changes taken place as a result of school-based decision making?

Type_____

Yes___ No___ 9. Are vocational school personnel represented in the school-based decision making process?

If yes, how?_____

Yes___ No___ 10. Has school-based decision making resulted in more articulation with the vocational school?

Yes___ No___ 11. Have significant changes taken place in the number of your high school students attending vocational school? Increase_____ Decrease_____

If so, why?_____

Please circle the degree of influence you believe school council decisions either had this year or will have next year on vocational programs. 0 No effect, 1 Limited effect, 2 Moderate effect, 3 Significant effect, 4 Great effect.

0 1 2 3 4 Schedule changes or time allocations allowing more time for joint planning by academic teachers and vocational teachers.

0 1 2 3 4 More overall integration of academic and vocational education.

0 1 2 3 4 More shared resources between vocational and academic programs.

0 1 2 3 4 More interdisciplinary projects between academic and vocational classes.

0 1 2 3 4 Better understanding of vocational programs by academic teachers.

0 1 2 3 4 Better understanding of academic programs by vocational teachers.

0 1 2 3 4 Increase in counseling activities for vocational students to help in career planning and course selection.

THANK YOU FOR HELPING WITH THIS RESEARCH. PLEASE DESCRIBE BELOW ANY OTHER SIGNIFICANT CHANGES IN VOCATIONAL EDUCATION WHICH YOU BELIEVE RESULT FROM THE WORK OF THE SCHOOL-BASED COUNCIL AND ANY OTHER COMMENTS YOU WISH TO MAKE.

UK UNIVERSITY OF KENTUCKY

College of Education

Vocational Education
43 Dickey Hall
University of Kentucky
Lexington, Kentucky 40506-0017

April 24, 1992

Dear Teacher:

As the school year comes to a close, I know how busy you are; but please take 5 minutes of your time to help evaluate the effects of your school's implementation this year of school-based decision making. I have tried to save your time by enclosing a pen to answer the questionnaire and a return envelope for your convenience.

Your opinions about this year's operation of the school council will become a part of this research effort to determine curricular or other changes that may have resulted from its implementation in high schools. Individual responses will be kept strictly confidential, and published results of the research will only be in summary form. This research is being conducted through the College of Education at the University of Kentucky.

Your quick response to the questionnaire will be very much appreciated. A copy of the research results will be available upon request in the fall 1992.

Sincerely,

Joyce Logan

Joyce Logan
Assistant Professor

jpl

Enclosures 3

SCHOOL-BASED DECISION MAKING
Questionnaire for Academic Teachers

Directions. This questionnaire seeks to measure the effect of school-based decision making on vocational programs and any effect on the integration of academic and vocational content or joint curricular efforts of academic teachers and vocational teachers. Please mark the response that, in your professional judgment, corresponds to the situation in your school.

EFFECTS OF SCHOOL COUNCIL DECISION MAKING

Please answer the following questions by checking "yes" or "no." To give a reason for your answer, use the blank for comment following the question.

Yes___ No___ 1. Do you believe implementation of the school-based council improved the quality of decision making for the school this year?

Comment:_____

Yes___ No___ 2. Do you believe the school-based decision-making process will improve the quality of future decisions for the school?

Comment:_____

Yes___ No___ 3. Do you believe academic teachers and vocational teachers worked together more closely this year as a result of school-based decision making?

Comment:_____

Please circle the degree of influence you believe school council decisions either had this year or will have on next year's programs. 0 No effect, 1 Limited effect, 2 Moderate effect, 3 Significant effect, 4 Great effect.

0 1 2 3 4 Schedule changes or time allocations allowing more joint planning by academic teachers and vocational teachers.

0 1 2 3 4 More overall integration of academic and vocational education.

0 1 2 3 4 More shared resources between vocational and academic programs.

0 1 2 3 4 More interdisciplinary projects between vocational and academic classes.

0 1 2 3 4 Better understanding of vocational programs by academic teachers.

0 1 2 3 4 Better understanding of academic programs by vocational teachers.

0 1 2 3 4 Addition of more academic content (English, mathematics, or science) in vocational classes or programs.

0 1 2 3 4 Addition of more occupational applications of content in academic classes (English, mathematics, or science).

THANK YOU FOR ANSWERING THIS QUESTIONNAIRE. USE THE REVERSE SIDE FOR ADDITIONAL COMMENTS.

UNIVERSITY OF KENTUCKY

College of Education

Vocational Education
43 Dickey Hall
University of Kentucky
Lexington, Kentucky 40506-0017

April 24, 1992

Dear Vocational Teacher:

As the school year comes to a close, I know how busy you are; but please take 5 minutes of your time to help evaluate the effects of your school's implementation this year of school-based decision making. I have tried to save your time by enclosing a pen to answer the questionnaire and a return envelope for your convenience.

Your opinions about this year's operation of the school council will become a part of this research effort to determine curricular or other changes that may have resulted from its implementation in high schools. Individual responses will be kept strictly confidential, and published results of the research will only be in summary form. This research is being conducted through the College of Education at the University of Kentucky.

Your quick response to the questionnaire will be very much appreciated. A copy of the research results will be available upon request in the fall 1992.

Sincerely,

Joyce Logan

Joyce Logan
Assistant Professor

jpl

Enclosures 3

An Equal Opportunity University

SCHOOL-BASED DECISION MAKING
Questionnaire for Vocational Teachers

Directions. This questionnaire seeks to measure the effect of school-based decision making on vocational programs and the involvement of vocational personnel on these councils. Please mark the response that, in your professional judgment, corresponds to the situation in your school.

EFFECTS OF SCHOOL COUNCIL DECISION MAKING: Please answer the following questions "Yes" or "No." To give a reason for your answer, use the blank for Comment following the question.

Yes___ No___ 1. Do you believe implementation of the school-based council improved the quality of decision making for the school this year?

Comment:_____

Yes___ No___ 2. Do you believe school-based decision-making will improve the quality of future decisions for the school?

Comment:_____

Yes___ No___ 3. Do you believe academic teachers and vocational teachers worked together more closely this year as a result of school-based decision making?

Comment:_____

Yes___ No___ 4. Have significant changes taken place in vocational program enrollment? Increase_____ Decrease____

If change, give reason:_____

Yes___ No___ 5. Have significant changes taken place in allocation of funds for vocational programs? Increase____ or Decrease____

If change, give reason:_____

Yes___ No___ 6. Have any new vocational programs or classes been added?

Type_____

Yes___ No___ 7. Have any vocational programs or classes been closed?

Type_____

Yes___ No___ 8. Have any other curricular changes taken place as a result of school-based decision making?

Type_____

REPRESENTATION IN SCHOOL COUNCIL ACTIVITIES

Yes___ No___ 1. Have vocational programs had representation on the school council or committees of the council?

If yes, how?_____

Yes___ No___ 2. Are vocational teachers serving on school-based committees affecting the total school program?

If yes, what committees?_____

Please circle the degree of influence you believe school council decisions either had this year or will have on next year's vocational programs. 0 No effect, 1 Limited effect, 2 Moderate effect, 3 Significant effect, 4 Great effect.

0 1 2 3 4 Schedule changes or time allocations allowing more time for joint planning by academic teachers and vocational teachers.

0 1 2 3 4 More overall integration of academic and vocational education.

0 1 2 3 4 More shared resources between vocational and academic programs.

0 1 2 3 4 More interdisciplinary projects between academic and vocational classes.

0 1 2 3 4 Better understanding of vocational programs by academic teachers.

0 1 2 3 4 Better understanding of academic programs by vocational teachers.

0 1 2 3 4 Addition of more academic content (English, mathematics, or science) in vocational classes or programs.

0 1 2 3 4 Addition of more occupational applications of content in academic classes (English, mathematics, or science).

THANK YOU FOR HELPING WITH THIS RESEARCH. PLEASE COMMENT BELOW ON ANY OTHER SIGNIFICANT CHANGES IN VOCATIONAL EDUCATION WHICH YOU BELIEVE RESULT FROM THE WORK OF THE SCHOOL-BASED COUNCIL AND ANY OTHER COMMENTS YOU WISH TO MAKE ABOUT THE WORK OF THE COUNCIL.

MATRIX OF COMMON QUESTIONS BY JOB TITLE ON THE 4 SBDM QUESTIONNAIRES

Section 1--Yes/No Questions

No.	PRINCIPAL	COUNSELOR	ACAD TCHR	VOC TCHR
1	X	X	X	X
2	X	X	X	X
3	X	X	X	X
4	X	X		X
5	X	X		X
6	X	X		X
7	X	X		X
8	X	X		X
9	X	X		
10	X	X		
11	X	X		

Likert Rating Items

1	X	X	X	X
2	X	X	X	X
3	X	X	X	X
4	X	X	X	X
5	X	X	X	X
6	X	X	X	X
7			X	X
8			X	X
9		X		

Other Sections

PRINCIPALS: Section on Voc. Tchr. council/committee involvement--
Ask for numbers on council and on committees

VOC. TCHRS.: Representation on council/committees
Two questions on representation: "Yes/No"

SBDM SURVEY RESPONSES
Frequency by School

SCHOOL	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	6	1.9	6	1.9
2	4	1.2	10	3.1
3	4	1.2	14	4.4
4	5	1.6	19	5.9
5	6	1.9	25	7.8
6	6	1.9	31	9.7
7	5	1.6	36	11.2
8	5	1.6	41	12.8
9	3	0.9	44	13.7
10	3	0.9	47	14.6
11	5	1.6	52	16.2
12	3	0.9	55	17.1
13	8	2.5	63	19.6
14	4	1.2	67	20.9
15	3	0.9	70	21.8
16	4	1.2	74	23.1
17	8	2.5	82	25.5
18	5	1.6	87	27.1
19	5	1.6	92	28.7
20	3	0.9	95	29.6
21	6	1.9	101	31.5
22	5	1.6	106	33.0
23	5	1.6	111	34.6
24	1	0.3	112	34.9
25	3	0.9	115	35.8
26	4	1.2	119	37.1
27	4	1.2	123	38.3
28	7	2.2	130	40.5
29	3	0.9	133	41.4
30	5	1.6	138	43.0
31	5	1.6	143	44.5
32	3	0.9	146	45.5
33	3	0.9	149	46.4
34	8	2.5	157	48.9
35	7	2.2	164	51.1
36	5	1.6	169	52.6
37	3	0.9	172	53.6
38	3	0.9	175	54.5
39	4	1.2	179	55.8
40	3	0.9	182	56.7
41	5	1.6	187	58.3
42	4	1.2	191	59.5
43	7	2.2	198	61.7
44	1	0.3	199	62.0
45	6	1.9	205	63.9
46	6	1.9	211	65.7
47	7	2.2	218	67.9
48	5	1.6	223	69.5
49	3	0.9	226	70.4
50	4	1.2	230	71.7
51	5	1.6	235	73.2
52	2	0.6	237	73.8
53	2	0.6	239	74.5
54	6	1.9	245	76.3
55	7	2.2	252	78.5
56	8	2.5	260	81.0
57	4	1.2	264	82.2
58	4	1.2	268	83.5
59	2	0.6	270	84.1
60	3	0.9	273	85.0
61	7	2.2	280	87.2
62	4	1.2	284	88.5
63	3	0.9	287	89.4
65	5	1.6	292	91.0
66	6	1.9	298	92.8
67	11	3.4	309	96.3
68	4	1.2	313	97.5
69	4	1.2	317	98.8
70	4	1.2	321	100.0

Frequency Missing = 3

SBDM SURVEY RESPONSES
By Job Title

JOB	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	43	13.3	43	13.3
2	42	13.0	85	26.2
3	122	37.7	207	63.9
4	117	36.1	324	100.0

1 = Principal
2 = Counselor
3 = Academic Teacher
4 = Vocational Teacher

SUBJECT	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	42	17.6	42	17.6
2	34	14.3	76	31.9
3	46	19.3	122	51.3
4	25	10.5	147	61.8
5	26	10.9	173	72.7
6	6	2.5	179	75.2
7	1	0.4	180	75.6
8	30	12.6	210	88.2
9	7	2.9	217	91.2
10	21	8.8	238	100.0

Frequency Missing = 1

1= English
2= Mathematics
3= Science
4= Agriculture
5= Business
6= Marketing
7= Health Services
8= Home Economics
9= Special Programs
10= Technology Educatio

CHISQ ANALYSIS OF DECISION MAKING

TABLE OF JOB BY QE1

JOB Title / QE1 Question 1	YES (1)	NO (2)	TOTAL
1	34	8	42
FREQUENCY	10.66	2.51	13.17
ROW PCT	80.95	19.05	
COL PCT	15.96	7.55	
2	25	17	42
FREQUENCY	7.84	5.33	13.17
ROW PCT	59.52	40.48	
COL PCT	11.74	16.04	
3	84	34	118
FREQUENCY	26.33	10.66	36.99
ROW PCT	71.19	28.81	
COL PCT	39.44	32.08	
4	70	47	117
FREQUENCY	21.94	14.73	36.68
ROW PCT	59.83	40.17	
COL PCT	32.86	44.34	
TOTAL	213	106	319
	66.77	33.23	100.00

FREQUENCY MISSING = 5

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE1

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	3	8.379	0.039
LIKELIHOOD RATIO CHI-SQUARE	3	8.683	0.034
MANTEL-HAENSZEL CHI-SQUARE	1	3.970	0.046
PHI		0.162	
CONTINGENCY COEFFICIENT		0.160	
CRAMER'S V		0.162	

EFFECTIVE SAMPLE SIZE = 319
FREQUENCY MISSING = 5

TABLE OF JOB BY QE2

JOB / QE2	1	2	TOTAL
1	38	1	39
FREQUENCY	12.26	0.32	12.58
ROW PCT	97.44	2.56	
COL PCT	14.96	1.79	
2	28	13	41
FREQUENCY	9.03	4.19	13.23
ROW PCT	68.29	31.71	
COL PCT	11.02	23.21	
3	97	19	116
FREQUENCY	31.29	6.13	37.42
ROW PCT	83.62	16.38	
COL PCT	38.19	33.93	
4	91	23	114
FREQUENCY	29.35	7.42	36.77
ROW PCT	79.82	20.18	
COL PCT	35.83	41.07	
TOTAL	254	56	310
	81.94	18.06	100.00

FREQUENCY MISSING = 14

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE2 '

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	3	12.052	0.007
LIKELIHOOD RATIO CHI-SQUARE	3	14.253	0.003
MANTEL-HAENSZEL CHI-SQUARE	1	1.717	0.190
PHI		0.197	
CONTINGENCY COEFFICIENT		0.193	
CRAMER'S V		0.197	

EFFECTIVE SAMPLE SIZE = 310
FREQUENCY MISSING = 14

BEST COPY AVAILABLE

CHISQ ANALYSIS OF DECISION MAKING

TABLE OF JOB BY QE3

JOB QE3

FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	21	20	41
	6.62	6.31	12.93
	51.22	48.78	
	15.67	10.93	
2	17	24	41
	5.36	7.57	12.93
	41.46	58.54	
	12.69	13.11	
3	40	78	118
	12.62	24.61	37.22
	33.90	66.10	
	29.85	42.62	
4	56	61	117
	17.67	19.24	36.91
	47.86	52.14	
	41.79	33.33	
TOTAL	134	183	317
	42.27	57.73	100.00

FREQUENCY MISSING = 7

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE3

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	3	6.246	0.100
LIKELIHOOD RATIO CHI-SQUARE	3	6.293	0.098
MANTEL-HAENSZEL CHI-SQUARE	1	0.003	0.958
PHI		0.140	
CONTINGENCY COEFFICIENT		0.139	
CRAMER'S V		0.140	

EFFECTIVE SAMPLE SIZE = 317
FREQUENCY MISSING = 7

TABLE OF JOB BY QE4

JOB QE4

FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	12	27	39
	6.15	13.85	20.00
	30.77	69.23	
	23.53	18.75	
2	8	34	42
	4.10	17.44	21.54
	19.05	80.95	
	15.69	23.61	
3	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
4	31	83	114
	15.90	42.56	58.46
	27.19	72.81	
	60.78	57.64	
TOTAL	51	144	195
	26.15	73.85	100.00

FREQUENCY MISSING = 7

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE4

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	2	1.592	0.451
LIKELIHOOD RATIO CHI-SQUARE	2	1.653	0.437
MANTEL-HAENSZEL CHI-SQUARE	1	0.016	0.900
PHI		0.090	
CONTINGENCY COEFFICIENT		0.090	
CRAMER'S V		0.090	

EFFECTIVE SAMPLE SIZE = 195
FREQUENCY MISSING = 7

TABLE OF JOB BY QE5

JOB	QE5		
FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	11	28	39
	5.91	15.05	20.97
	28.21	71.79	
	14.86	25.00	
2	7	28	35
	3.76	15.05	18.82
	20.00	80.00	
	9.46	25.00	
3	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
4	56	56	112
	30.11	30.11	60.22
	50.00	50.00	
	75.68	50.00	
TOTAL	74	112	186
	39.78	60.22	100.00

FREQUENCY MISSING = 16

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE5

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	2	12.780	0.002
LIKELIHOOD RATIO CHI-SQUARE	2	13.339	0.001
MANTEL-HAENSZEL CHI-SQUARE	1	8.640	0.003
PHI		0.262	
CONTINGENCY COEFFICIENT		0.254	
CRAMER'S V		0.262	

EFFECTIVE SAMPLE SIZE = 186
FREQUENCY MISSING = 16

TABLE OF JOB BY QE6

JOB	QE6		
FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	16	26	42
	8.29	13.47	21.76
	38.10	61.90	
	26.23	19.70	
2	16	26	42
	8.29	13.47	21.76
	38.10	61.90	
	26.23	19.70	
3	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
4	29	80	109
	15.03	41.45	56.48
	26.61	73.39	
	47.54	60.61	
TOTAL	61	132	193
	31.61	68.39	100.00

FREQUENCY MISSING = 9

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE6

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	2	2.897	0.235
LIKELIHOOD RATIO CHI-SQUARE	2	2.885	0.236
MANTEL-HAENSZEL CHI-SQUARE	1	2.408	0.121
PHI		0.123	
CONTINGENCY COEFFICIENT		0.122	
CRAMER'S V		0.123	

EFFECTIVE SAMPLE SIZE = 193
FREQUENCY MISSING = 9

TABLE OF JOB BY QE7

JOB QE7

FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	6	35	41
	3.11	18.13	21.24
	14.63	85.37	
	18.18	21.88	
2	7	34	41
	3.63	17.62	21.24
	17.07	82.93	
	21.21	21.25	
3	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
4	20	91	111
	10.36	47.15	57.51
	18.02	81.98	
	60.61	56.88	
TOTAL	33	160	193
	17.10	82.90	100.00

FREQUENCY MISSING = 9

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE7

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	2	0.242	0.886
LIKELIHOOD RATIO CHI-SQUARE	2	0.248	0.883
MANTEL-HAENSZEL CHI-SQUARE	1	0.229	0.633
PHI		0.035	
CONTINGENCY COEFFICIENT		0.035	
CRAMER'S V		0.035	

EFFECTIVE SAMPLE SIZE = 193
FREQUENCY MISSING = 9

TABLE OF JOB BY QE8

JOB QE8

FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	23	19	42
	12.23	10.11	22.34
	54.76	45.24	
	28.75	17.59	
2	17	24	41
	9.04	12.77	21.81
	41.46	58.54	
	21.25	22.22	
3	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
4	40	65	105
	21.28	34.57	55.85
	38.10	61.90	
	50.00	60.19	
TOTAL	80	108	188
	42.55	57.45	100.00

FREQUENCY MISSING = 14

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE8

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	2	3.434	0.180
LIKELIHOOD RATIO CHI-SQUARE	2	3.407	0.182
MANTEL-HAENSZEL CHI-SQUARE	1	3.110	0.078
PHI		0.135	
CONTINGENCY COEFFICIENT		0.134	
CRAMER'S V		0.135	

EFFECTIVE SAMPLE SIZE = 188
FREQUENCY MISSING = 14

TABLE OF JOB BY QE9

JOB	QE9		
FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	31	11	42
	37.80	13.41	51.22
	73.81	26.19	
	50.82	52.38	
2	30	10	40
	36.59	12.20	48.78
	75.00	25.00	
	49.18	47.62	
3	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
4	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
TOTAL	61	21	82
	74.39	25.61	100.00

FREQUENCY MISSING = 3

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE9

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	1	0.015	0.902
LIKELIHOOD RATIO CHI-SQUARE	1	0.015	0.902
CONTINUITY ADJ. CHI-SQUARE	1	0.000	1.000
MANTEL-HAENSZEL CHI-SQUARE	1	0.015	0.902
FISHER'S EXACT TEST (1-TAIL)			0.552
(2-TAIL)			1.000
PHI		-0.014	
CONTINGENCY COEFFICIENT		0.014	
CRAMER'S V		-0.014	

EFFECTIVE SAMPLE SIZE = 82
FREQUENCY MISSING = 3

TABLE OF JOB BY QE10

JOB	QE10		
FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	14	26	40
	17.72	32.91	50.63
	35.00	65.00	
	70.00	44.07	
2	6	33	39
	7.59	41.77	49.37
	15.38	84.62	
	30.00	55.93	
3	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
4	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
TOTAL	20	59	79
	25.32	74.68	100.00

FREQUENCY MISSING = 6

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE10

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	1	4.018	0.045
LIKELIHOOD RATIO CHI-SQUARE	1	4.111	0.043
CONTINUITY ADJ. CHI-SQUARE	1	3.048	0.081
MANTEL-HAENSZEL CHI-SQUARE	1	3.968	0.046
FISHER'S EXACT TEST (1-TAIL)			0.040
(2-TAIL)			0.069
PHI		0.226	
CONTINGENCY COEFFICIENT		0.220	
CRAMER'S V		0.226	

EFFECTIVE SAMPLE SIZE = 79
FREQUENCY MISSING = 6

TABLE OF JOB BY QE11

JOB QE11

FREQUENCY / PERCENT / ROW PCT / COL PCT	1	2	TOTAL
1	6	35	41
	7.32	42.68	50.00
	14.63	85.37	
	60.00	48.61	
2	4	37	41
	4.88	45.12	50.00
	9.76	90.24	
	40.00	51.39	
3	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
4	0	0	0
	0.00	0.00	0.00
	.	.	
	0.00	0.00	
TOTAL	10	72	82
	12.20	87.80	100.00

FREQUENCY MISSING = 3

CHISQ ANALYSIS OF DECISION MAKING

STATISTICS FOR TABLE OF JOB BY QE11

STATISTIC	DF	VALUE	PROB
CHI-SQUARE	1	0.456	0.500
LIKELIHOOD RATIO CHI-SQUARE	1	0.458	0.498
CONTINUITY ADJ. CHI-SQUARE	1	0.114	0.736
MANTEL-HAENSZEL CHI-SQUARE	1	0.450	0.502
FISHER'S EXACT TEST (1-TAIL)			0.369
(2-TAIL)			0.737
PHI		0.075	
CONTINGENCY COEFFICIENT		0.074	
CRAMER'S V		0.075	

EFFECTIVE SAMPLE SIZE = 82
FREQUENCY MISSING = 3

VOCATIONAL TEACHERS' SURVEY
Yes or No to representation on School Council

FREQUENCY TABLES OF SBDM

VOCREP1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	99	84.6	99	84.6
2	18	15.4	117	100.0

VORCEP2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	81	71.7	81	71.7
2	32	28.3	113	100.0

TEACHERS SURVEY: YES OR NO
Voc. Teachers on School Committees

PRINCIPALS' SURVEY
Vocational Teachers on School Council (ACTIV1)
Vocational Teachers on Committees (ACTIV2)

ACTIV1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	20	46.5	20	46.5
1	20	46.5	40	93.0
2	2	4.7	42	97.7
3	1	2.3	43	100.0

ACTIV2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	5	12.2	5	12.2
1	4	9.8	9	22.0
2	5	12.2	14	34.1
3	6	14.6	20	48.8
4	6	14.6	26	63.4
5	4	9.8	30	73.2
6	2	4.9	32	78.0
7	2	4.9	34	82.9
8	2	4.9	36	87.8
9	1	2.4	37	90.2
10	3	7.3	40	97.6
11	1	2.4	41	100.0

ACTIV3	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	29	72.5	29	72.5
1	6	15.0	35	87.5
2	3	7.5	38	95.0
4	1	2.5	39	97.5
5	1	2.5	40	100.0

(ACTIV3) Parents on Council who are also on Voc. Advisory Committees

LIKERT RATING ITEMS ON INTEGRATION - Items 1-9
Total Survey Responses

SAS 14:38 WEDNESDAY, JUNE 10, 1992 1

VARIABLE	N	MEAN	STANDARD DEVIATION	MINIMUM VALUE	MAXIMUM VALUE	STD ERROR OF MEAN	SUM	VARIANCE	C.V.
QI1	321	1.16510903	1.27506032	0	4.00000000	0.07116693	374.00000000	1.62577882	109.437
QI2	321	1.47975078	1.18072856	0	4.00000000	0.06590184	475.00000000	1.39411994	79.792
QI3	321	1.45482866	1.18795388	0	4.00000000	0.06630512	467.00000000	1.41123442	81.656
QI4	319	1.45454545	1.19891317	0	4.00000000	0.06712625	464.00000000	1.43739280	82.425
QI5	322	1.56211180	1.23960822	0	4.00000000	0.06908067	503.00000000	1.53662855	79.355
QI6	320	1.69687500	1.23125045	0	4.00000000	0.06882899	543.00000000	1.51597766	72.560
QI7	232	1.71120690	1.27522320	0	4.00000000	0.08372250	397.00000000	1.62619421	74.522
QI8	236	1.49576271	1.19750763	0	4.00000000	0.07795111	353.00000000	1.43402452	80.060
QI9	42	2.00000000	1.22971343	0	4.00000000	0.18974890	84.00000000	1.51219512	61.486

ANALYSIS OF VARIANCE OF INFLUENCE 14:38 WEDNESDAY, JUNE 10, 1992 3

GENERAL LINEAR MODELS PROCEDURE

CLASS LEVEL INFORMATION

CLASS	LEVELS	VALUES
JOB	4	1 2 3 4

NUMBER OF OBSERVATIONS IN DATA SET = 324

GROUP	OBS	DEPENDENT VARIABLES
1	321	QI1 QI2 QI3
2	319	QI4
3	322	QI5
4	320	QI6
5	232	QI7
6	236	QI8

NOTE: VARIABLES IN EACH GROUP ARE CONSISTENT WITH RESPECT TO THE PRESENCE OR ABSENCE OF MISSING VALUES.

COMPARISON OF RATINGS ON INTEGRATION ITEM 1 (By Job Title)

ANALYSIS OF VARIANCE OF INFLUENCE 14:38 WEDNESDAY, JUNE 10, 1992 4

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: QI1

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.
MODEL	3	22.86942968	7.62314323	4.86	0.0026	0.043959	107.5098
ERROR	317	497.37979150	1.56902142		ROOT MSE		QI1 MEAN
CORRECTED TOTAL	320	520.24922118			1.25260585		1.16510903

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
JOB	3	22.86942968	4.86	0.0026	3	22.86942968	4.86	0.0026

ANALYSIS OF VARIANCE OF INFLUENCE 14:38 WEDNESDAY, JUNE 10, 1992 7

GENERAL LINEAR MODELS PROCEDURE

T TESTS (LSD) FOR VARIABLE: QI1
NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
NOT THE EXPERIMENTWISE ERROR RATE.

ALPHA=0.05 CONFIDENCE=0.95 DF=317 MSE=1.56902
CRITICAL VALUE OF T=1.96748

COMPARISONS SIGNIFICANT AT THE 0.05 LEVEL ARE INDICATED BY '***'

JOB COMPARISON		LOWER CONFIDENCE LIMIT	DIFFERENCE BETWEEN MEANS	UPPER CONFIDENCE LIMIT	
1	- 3	0.0031	0.4411	0.8791	***
1	- 4	0.1482	0.5882	1.0282	***
1	- 2	0.4731	1.0078	1.5424	***
3	- 1	-0.8791	-0.4411	-0.0031	***
3	- 4	-0.1738	0.1471	0.4680	
3	- 2	0.1248	0.5667	1.0085	***
4	- 1	-1.0282	-0.5882	-0.1482	***
4	- 3	-0.4680	-0.1471	0.1738	
4	- 2	-0.0243	0.4195	0.8634	
2	- 1	-1.5424	-1.0078	-0.4731	***
2	- 3	-1.0085	-0.5667	-0.1248	***
2	- 4	-0.8634	-0.4195	0.0243	

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: QI2

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.
MODEL	3	11.51337949	3.83779316	2.80	0.0402	0.025808	79.1278
ERROR	317	434.60500057	1.37099369		ROOT MSE		QI2 MEAN
CORRECTED TOTAL	320	446.11838006			1.17089440		1.47975078

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
JOB	3	11.51337949	2.80	0.0402	3	11.51337949	2.80	0.0402

GENERAL LINEAR MODELS PROCEDURE

T TESTS (LSD) FOR VARIABLE: QI2
NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
NOT THE EXPERIMENTWISE ERROR RATE.

ALPHA=0.05 CONFIDENCE=0.95 DF=317 MSE=1.37099
CRITICAL VALUE OF T=1.96748

COMPARISONS SIGNIFICANT AT THE 0.05 LEVEL ARE INDICATED BY '***'

JOB COMPARISON	LOWER CONFIDENCE LIMIT	DIFFERENCE BETWEEN MEANS	UPPER CONFIDENCE LIMIT	
1 - 4	-0.0129	0.3984	0.8097	
1 - 3	0.1142	0.5236	0.9331	***
1 - 2	0.1691	0.6689	1.1687	***
4 - 1	-0.8097	-0.3984	0.0129	
4 - 3	-0.1747	0.1253	0.4252	
4 - 2	-0.1443	0.2705	0.6854	
3 - 1	-0.9331	-0.5236	-0.1142	***
3 - 4	-0.4252	-0.1253	0.1747	
3 - 2	-0.2678	0.1452	0.5583	
2 - 1	-1.1687	-0.6689	-0.1691	***
2 - 4	-0.6854	-0.2705	0.1443	
2 - 3	-0.5583	-0.1452	0.2678	

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: QI3

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.
MODEL	3	20.25632558	6.75210853	4.96	0.0022	0.044855	80.1803
ERROR	317	431.33869000	1.36068987		ROOT MSE		QI3 MEAN
CORRECTED TOTAL	320	451.59501558			1.16648612		1.45482866

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
JOB	3	20.25632558	4.96	0.0022	3	20.25632558	4.96	0.0022

GENERAL LINEAR MODELS PROCEDURE

T TESTS (LSD) FOR VARIABLE: QI3
NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
NOT THE EXPERIMENTWISE ERROR RATE.

ALPHA=0.05 CONFIDENCE=0.95 DF=317 MSE=1.36069
CRITICAL VALUE OF T=1.96748

COMPARISONS SIGNIFICANT AT THE 0.05 LEVEL ARE INDICATED BY '***'

JOB COMPARISON	LOWER CONFIDENCE LIMIT	DIFFERENCE BETWEEN MEANS	UPPER CONFIDENCE LIMIT	
1 - 4	0.1307	0.5405	0.9503	***
1 - 3	0.2737	0.6816	1.0895	***
1 - 2	0.4063	0.9042	1.4021	***
4 - 1	-0.9503	-0.5405	-0.1307	***
4 - 3	-0.1577	0.1411	0.4399	
4 - 2	-0.0496	0.3637	0.7770	
3 - 1	-1.0895	-0.6816	-0.2737	***
3 - 4	-0.4399	-0.1411	0.1577	
3 - 2	-0.1888	0.2226	0.6341	
2 - 1	-1.4021	-0.9042	-0.4063	***
2 - 4	-0.7770	-0.3637	0.0496	
2 - 3	-0.6341	-0.2226	0.1888	

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: QI4

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.
MODEL	3	11.73778063	3.91259354	2.77	0.0419	0.025679	81.7466
ERROR	315	445.35312846	1.41381946		ROOT MSE		QI4 MEAN
CORRECTED TOTAL	318	457.09090909			1.18904140		1.45454545

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
JOB	3	11.73778063	2.77	0.0419	3	11.73778063	2.77	0.0419

GENERAL LINEAR MODELS PROCEDURE

T TESTS (LSD) FOR VARIABLE: QI4
NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
NOT THE EXPERIMENTWISE ERROR RATE.

ALPHA=0.05 CONFIDENCE=0.95 DF=315 MSE=1.41382
CRITICAL VALUE OF T=1.96752

COMPARISONS SIGNIFICANT AT THE 0.05 LEVEL ARE INDICATED BY '***'

JOB COMPARISON	LOWER CONFIDENCE LIMIT	DIFFERENCE BETWEEN MEANS	UPPER CONFIDENCE LIMIT	
1 - 4	-0.0350	0.3837	0.8024	
1 - 2	0.0190	0.5266	1.0341	***
1 - 3	0.1763	0.5921	1.0079	***
4 - 1	-0.8024	-0.3837	0.0350	
4 - 2	-0.2794	0.1429	0.5651	
4 - 3	-0.0976	0.2083	0.5143	
2 - 1	-1.0341	-0.5266	-0.0190	***
2 - 4	-0.5651	-0.1429	0.2794	
2 - 3	-0.3540	0.0655	0.4849	
3 - 1	-1.0079	-0.5921	-0.1763	***
3 - 4	-0.5143	-0.2083	0.0976	
3 - 2	-0.4849	-0.0655	0.3540	

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: QI5

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.
MODEL	3	13.87264922	4.62421641	3.07	0.0282	0.028125	78.5989
ERROR	318	479.38511475	1.50750036		ROOT MSE		QI5 MEAN
CORRECTED TOTAL	321	493.25776398			1.22780306		1.56211180

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
JOB	3	13.87264922	3.07	0.0282	3	13.87264922	3.07	0.0282

GENERAL LINEAR MODELS PROCEDURE

T TESTS (LSD) FOR VARIABLE: QI5
NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
NOT THE EXPERIMENTWISE ERROR RATE.

ALPHA=0.05 CONFIDENCE=0.95 DF=318 MSE=1.5075
CRITICAL VALUE OF T=1.96745

COMPARISONS SIGNIFICANT AT THE 0.05 LEVEL ARE INDICATED BY '***'

JOB COMPARISON	LOWER CONFIDENCE LIMIT	DIFFERENCE BETWEEN MEANS	UPPER CONFIDENCE LIMIT	
1 - 4	0.0868	0.5180	0.9493	***
1 - 3	0.1863	0.6152	1.0441	***
1 - 2	0.1648	0.6888	1.2129	***
4 - 1	-0.9493	-0.5180	-0.0868	***
4 - 3	-0.2167	0.0972	0.4111	
4 - 2	-0.2642	0.1708	0.6058	
3 - 1	-1.0441	-0.6152	-0.1863	***
3 - 4	-0.4111	-0.0972	0.2167	
3 - 2	-0.3590	0.0736	0.5062	
2 - 1	-1.2129	-0.6888	-0.1648	***
2 - 4	-0.6058	-0.1708	0.2642	
2 - 3	-0.5062	-0.0736	0.3590	

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: QI6

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.
MODEL	3	12.71539306	4.23846435	2.84	0.0379	0.026293	71.9387
ERROR	316	470.88148194	1.49013127		ROOT MSE		QI6 MEAN
CORRECTED TOTAL	319	483.59687500			1.22070933		1.69687500

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
JOB	3	12.71539306	2.84	0.0379	3	12.71539306	2.84	0.0379

GENERAL LINEAR MODELS PROCEDURE

T TESTS (LSD) FOR VARIABLE: QI6
NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
NOT THE EXPERIMENTWISE ERROR RATE.

ALPHA=0.05 CONFIDENCE=0.95 DF=316 MSE=1.49013
CRITICAL VALUE OF T=1.96750

COMPARISONS SIGNIFICANT AT THE 0.05 LEVEL ARE INDICATED BY '***'

JOB COMPARISON	LOWER CONFIDENCE LIMIT	DIFFERENCE BETWEEN MEANS	UPPER CONFIDENCE LIMIT	
1 - 4	-0.2418	0.1870	0.6159	
1 - 2	-0.0692	0.4518	0.9729	
1 - 3	0.1085	0.5359	0.9632	***
4 - 1	-0.6159	-0.1870	0.2418	
4 - 2	-0.1677	0.2648	0.6973	
4 - 3	0.0354	0.3488	0.6622	***
2 - 1	-0.9729	-0.4518	0.0692	
2 - 4	-0.6973	-0.2648	0.1677	
2 - 3	-0.3470	0.0840	0.5151	
3 - 1	-0.9632	-0.5359	-0.1085	***
3 - 4	-0.6622	-0.3488	-0.0354	***
3 - 2	-0.5151	-0.0840	0.3470	

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: QI7

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.
MODEL	1	8.50645479	8.50645479	5.33	0.0219	0.022645	73.8333
ERROR	230	367.14440728	1.59628003		ROOT MSE		QI7 MEAN
CORRECTED TOTAL	231	375.65086207			1.26343976		1.71120690

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
JOB	1	8.50645479	5.33	0.0219	1	8.50645479	5.33	0.0219

GENERAL LINEAR MODELS PROCEDURE

T TESTS (LSD) FOR VARIABLE: QI7
NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
NOT THE EXPERIMENTWISE ERROR RATE

ALPHA=0.05 DF=230 MSE=1.59628
CRITICAL VALUE OF T=1.97033
LEAST SIGNIFICANT DIFFERENCE=.32689

WARNING: CELL SIZES ARE NOT EQUAL.
HARMONIC MEAN OF CELL SIZES=115.991

MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.

T	GROUPING	MEAN	N	JOB
	A	1.9043	115	4
	B	1.5214	117	3

81

82

GENERAL LINEAR MODELS PROCEDURE

DEPENDENT VARIABLE: QI8

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	F VALUE	PR > F	R-SQUARE	C.V.
MODEL	1	0.03771673	0.03771673	0.03	0.8716	0.000112	80.2264
ERROR	234	336.95804598	1.43999165		ROOT MSE		QI8 MEAN
CORRECTED TOTAL	235	336.99576271			1.19999652		1.49576271

SOURCE	DF	TYPE I SS	F VALUE	PR > F	DF	TYPE III SS	F VALUE	PR > F
JOB	1	0.03771673	0.03	0.8716	1	0.03771673	0.03	0.8716

GENERAL LINEAR MODELS PROCEDURE

T TESTS (LSD) FOR VARIABLE: QI8
NOTE: THIS TEST CONTROLS THE TYPE I COMPARISONWISE ERROR RATE,
NOT THE EXPERIMENTWISE ERROR RATE

ALPHA=0.05 DF=234 MSE=1.43999
CRITICAL VALUE OF T=1.97015
LEAST SIGNIFICANT DIFFERENCE=.30783

WARNING: CELL SIZES ARE NOT EQUAL.
HARMONIC MEAN OF CELL SIZES=117.966

MEANS WITH THE SAME LETTER ARE NOT SIGNIFICANTLY DIFFERENT.

T	GROUPING	MEAN	N	JOB
	A	1.5086	116	4
	A			
	A	1.4833	120	3

Correlation Analysis

6 'VAR' Variables: QI1 QI2 QI3 QI4 QI5 QI6

Likert Rating Items 1-6

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
QI1	321	1.165109	1.275060	374.000000	0	4.000000
QI2	321	1.479751	1.180729	475.000000	0	4.000000
QI3	321	1.454829	1.187954	467.000000	0	4.000000
QI4	319	1.454545	1.198913	464.000000	0	4.000000
QI5	322	1.562112	1.239608	503.000000	0	4.000000
QI6	320	1.696875	1.231250	543.000000	0	4.000000

Cronbach Coefficient Alpha

for RAW variables : 0.938009
for STANDARDIZED variables: 0.938550

	Raw Variables		Std. Variables	
Deleted Variable	Correlation with Total	Alpha	Correlation with Total	Alpha
QI1	0.690087	0.942468	0.690217	0.942370
QI2	0.861711	0.920877	0.861647	0.921444
QI3	0.836024	0.923960	0.838241	0.924377
QI4	0.829384	0.924723	0.830593	0.925330
QI5	0.851167	0.921885	0.849698	0.922944
QI6	0.830115	0.924568	0.829046	0.925522

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / Number of Observations

	QI1	QI2	QI3	QI4	QI5	QI6
QI1	1.00000 0.0 321	0.69241 0.0001 321	0.64347 0.0001 321	0.59307 0.0001 319	0.62052 0.0001 321	0.56162 0.0001 319
QI2	0.69241 0.0001 321	1.00000 0.0 321	0.77522 0.0001 321	0.80257 0.0001 319	0.74550 0.0001 321	0.74237 0.0001 319
QI3	0.64347 0.0001 321	0.77522 0.0001 321	1.00000 0.0 321	0.78677 0.0001 319	0.74624 0.0001 321	0.72072 0.0001 319
QI4	0.59307 0.0001 319	0.80257 0.0001 319	0.78677 0.0001 319	1.00000 0.0 319	0.72509 0.0001 319	0.73674 0.0001 317
QI5	0.62052 0.0001 321	0.74550 0.0001 321	0.74624 0.0001 321	0.72509 0.0001 319	1.00000 0.0 322	0.87709 0.0001 320
QI6	0.56162 0.0001 319	0.74237 0.0001 319	0.72072 0.0001 319	0.73674 0.0001 317	0.87709 0.0001 320	1.00000 0.0 320

85

80

---------- JOB=1 ----------

Correlation Analysis

6 'VAR' Variables: QI1 QI2 QI3 QI4 QI5 QI6

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
QI1	43	1.674419	1.357886	72.000000	0	4.000000
QI2	43	1.906977	1.191517	82.000000	0	4.000000
QI3	43	2.023256	1.184993	87.000000	0	4.000000
QI4	43	1.883721	1.348885	81.000000	0	4.000000
QI5	43	2.069767	1.261053	89.000000	0	4.000000
QI6	43	2.023256	1.204918	87.000000	0	4.000000

Cronbach Coefficient Alpha

for RAW variables : 0.951468
for STANDARDIZED variables: 0.953769

	Raw Variables		Std. Variables	
Deleted Variable	Correlation with Total	Alpha	Correlation with Total	Alpha
QI1	0.737988	0.956261	0.740936	0.957775
QI2	0.905785	0.936354	0.904707	0.939423
QI3	0.901087	0.936945	0.901138	0.939834
QI4	0.760071	0.953482	0.763400	0.955319
QI5	0.909258	0.935371	0.912520	0.938522
QI6	0.915864	0.935082	0.917809	0.937910

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / N = 43

	QI1	QI2	QI3	QI4	QI5	QI6
QI1	1.00000 0.0	0.76078 0.0001	0.72987 0.0001	0.53780 0.0002	0.69490 0.0001	0.70325 0.0001
QI2	0.76078 0.0001	1.00000 0.0	0.82786 0.0001	0.77826 0.0001	0.84426 0.0001	0.84733 0.0001
QI3	0.72987 0.0001	0.82786 0.0001	1.00000 0.0	0.76141 0.0001	0.85928 0.0001	0.86674 0.0001
QI4	0.53780 0.0002	0.77826 0.0001	0.76141 0.0001	1.00000 0.0	0.71874 0.0001	0.71952 0.0001
QI5	0.69490 0.0001	0.84426 0.0001	0.85928 0.0001	0.71874 0.0001	1.00000 0.0	0.97043 0.0001
QI6	0.70325 0.0001	0.84733 0.0001	0.86674 0.0001	0.71952 0.0001	0.97043 0.0001	1.00000 0.0

JOB=2

Correlation Analysis

6 'VAR' Variables: QI1 QI2 QI3 QI4 QI5 QI6

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
QI1	42	0.666667	0.816497	28.000000	0	3.000000
QI2	42	1.238095	1.054827	52.000000	0	3.000000
QI3	42	1.119048	1.016987	47.000000	0	3.000000
QI4	42	1.357143	1.226167	57.000000	0	4.000000
QI5	42	1.380952	1.080930	58.000000	0	3.000000
QI6	42	1.571429	1.252176	66.000000	0	4.000000

Correlation Analysis

Cronbach Coefficient Alpha

for RAW variables : 0.926606
for STANDARDIZED variables: 0.926785

	Raw Variables		Std. Variables	
Deleted Variable	Correlation with Total	Alpha	Correlation with Total	Alpha
QI1	0.594708	0.935671	0.599441	0.937381
QI2	0.852910	0.904653	0.850555	0.904946
QI3	0.785638	0.913623	0.789902	0.913054
QI4	0.843104	0.906055	0.837555	0.906698
QI5	0.872799	0.901686	0.863111	0.903245
QI6	0.902240	0.912758	0.792855	0.912663

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / N = 42

	QI1	QI2	QI3	QI4	QI5	QI6
QI1	1.00000 0.0	0.57582 0.0001	0.57767 0.0001	0.51160 0.0005	0.56192 0.0001	0.45326 0.0026
QI2	0.57582 0.0001	1.00000 0.0	0.76870 0.0001	0.80010 0.0001	0.73138 0.0001	0.74391 0.0001
QI3	0.57767 0.0001	0.76870 0.0001	1.00000 0.0	0.72788 0.0001	0.71210 0.0001	0.61563 0.0001
QI4	0.51160 0.0005	0.80010 0.0001	0.72788 0.0001	1.00000 0.0	0.79655 0.0001	0.73754 0.0001
QI5	0.56192 0.0001	0.73138 0.0001	0.71210 0.0001	0.79655 0.0001	1.00000 0.0	0.86238 0.0001
QI6	0.45326 0.0026	0.74391 0.0001	0.61563 0.0001	0.73754 0.0001	0.86238 0.0001	1.00000 0.0

Correlation Analysis

6 'VAR' Variables: QI1 QI2 QI3 QI4 QI5 QI6

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
QI1	120	1.233333	1.351832	148.000000	0	4.000000
QI2	120	1.383333	1.210482	166.000000	0	4.000000
QI3	120	1.341667	1.212649	161.000000	0	4.000000
QI4	120	1.291667	1.169614	155.000000	0	4.000000
QI5	121	1.454545	1.284523	176.000000	0	4.000000
QI6	119	1.487395	1.241005	177.000000	0	4.000000

Correlation Analysis

Cronbach Coefficient Alpha

for RAW variables : 0.953140
for STANDARDIZED variables: 0.953977

	Raw Variables		Std. Variables	
Deleted Variable	Correlation with Total	Alpha	Correlation with Total	Alpha
QI1	0.733125	0.959368	0.732743	0.958955
QI2	0.888039	0.940559	0.886991	0.941772
QI3	0.856986	0.944002	0.859245	0.944931
QI4	0.877785	0.941996	0.878767	0.942712
QI5	0.907029	0.938072	0.905864	0.939607
QI6	0.879939	0.941332	0.877561	0.942849

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / Number of Observations

	QI1	QI2	QI3	QI4	QI5	QI6
QI1	1.00000 0.0 120	0.75627 0.0001 120	0.66350 0.0001 120	0.66878 0.0001 120	0.67230 0.0001 120	0.63472 0.0001 118
QI2	0.75627 0.0001 120	1.00000 0.0 120	0.78592 0.0001 120	0.84036 0.0001 120	0.81490 0.0001 120	0.79670 0.0001 118
QI3	0.66350 0.0001 120	0.78592 0.0001 120	1.00000 0.0 120	0.84750 0.0001 120	0.80941 0.0001 120	0.78285 0.0001 118
QI4	0.66878 0.0001 120	0.84036 0.0001 120	0.84750 0.0001 120	1.00000 0.0 120	0.81522 0.0001 120	0.79129 0.0001 118
QI5	0.67230 0.0001 120	-0.81490 0.0001 120	0.80941 0.0001 120	0.81522 0.0001 120	1.00000 0.0 121	0.95304 0.0001 119
QI6	0.63472 0.0001 118	0.79670 0.0001 118	0.78285 0.0001 118	0.79129 0.0001 118	0.95304 0.0001 119	1.00000 0.0 119

JOB=4

Correlation Analysis

6 'VAR' Variables: QI1 QI2 QI3 QI4 QI5 QI6

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
QI1	116	1.086207	1.234074	126.000000	0	4.000000
QI2	116	1.508621	1.160927	175.000000	0	4.000000
QI3	116	1.482759	1.160830	172.000000	0	4.000000
QI4	114	1.500000	1.130823	171.000000	0	4.000000
QI5	116	1.551724	1.203942	180.000000	0	4.000000
QI6	116	1.836207	1.193781	213.000000	0	4.000000

Cronbach Coefficient Alpha

for RAW variables : 0.912038
for STANDARDIZED variables: 0.913001

	Raw Variables		Std. Variables	
Deleted Variable	Correlation with Total	Alpha	Correlation with Total	Alpha
QI1	0.644926	0.912283	0.644917	0.912787
QI2	0.804182	0.889117	0.805362	0.890256
QI3	0.782359	0.892223	0.787844	0.892782
QI4	0.801272	0.889830	0.803131	0.890578
QI5	0.739955	0.898262	0.737711	0.899921
QI6	0.760057	0.895329	0.758726	0.896944

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0 / Number of Observations

	QI1	QI2	QI3	QI4	QI5	QI6
QI1	1.00000 0.0 116	0.61250 0.0001 116	0.57770 0.0001 116	0.57482 0.0001 114	0.52957 0.0001 116	0.48187 0.0001 116
QI2	0.61250 0.0001 116	1.00000 0.0 116	0.72602 0.0001 116	0.76798 0.0001 114	0.61249 0.0001 116	0.63788 0.0001 116
QI3	0.57770 0.0001 116	0.72602 0.0001 116	1.00000 0.0 116	0.74653 0.0001 114	0.61662 0.0001 116	0.62858 0.0001 116
QI4	0.57482 0.0001 114	0.76798 0.0001 114	0.74653 0.0001 114	1.00000 0.0 114	0.58707 0.0001 114	0.67268 0.0001 114
QI5	0.52957 0.0001 116	0.61249 0.0001 116	0.61662 0.0001 116	0.58707 0.0001 114	1.00000 0.0 116	0.77130 0.0001 116
QI6	0.48187 0.0001	0.63788 0.0001	0.62858 0.0001	0.67268 0.0001	0.77130 0.0001	1.00000 0.0